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.

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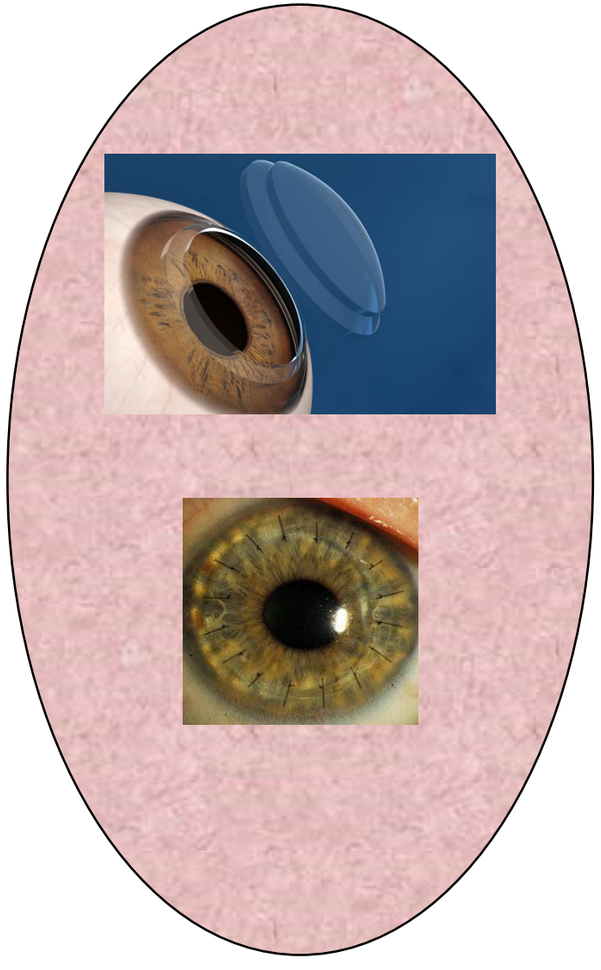
CORNEAL TRANSPLANTATION

A boon for the corneal blind



Patient Information Brochure °Not valid for legal purposes

About the cornea

The cornea is the transparent, dome-shaped front part of the eye that covers and protects the iris, pupil and anterior chamber. It is a powerful refracting surface and provides more than 2/3rd of the eye's optical power. **It does not contain any blood vessels and derives nourishment from atmospheric oxygen dissolved in tears and from the aqueous fluid.** To see well, all layers of the cornea must be free of any cloudy or opaque areas. **Being devoid of any blood vessels bestows 'immunologic privilege' upon the cornea making it a very special organ. This is the sole reason why, amongst all organ transplants in the body, corneal transplants have a high success rate.**

What is corneal transplantation?

Corneal transplantation (keratoplasty) is a surgical procedure that corrects blindness resulting from corneal disease. It involves replacing a diseased or scarred cornea with a clear, healthy, donor cornea (corneal graft) recovered from a deceased person. The cornea may be replaced in its entirety *(penetrating keratoplasty)* or in part *(lamellar keratoplasty)*.

Are artificial corneas also available?

Artificial corneas are not available. **Corneas have to be recovered only through eye donation.** Lack of eye donors is the major limiting factor in making many of the corneal blind see again.

What conditions may require corneal transplantation?

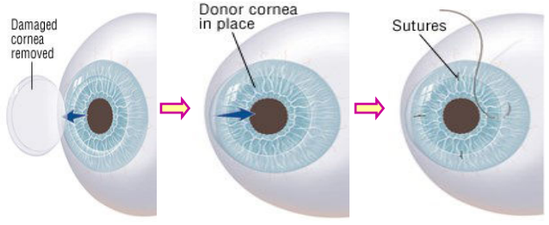
- Corneal scarring resulting from corneal infections.
- Hereditary corneal diseases and dystrophies / degenerations.
- Keratoconus.
- Ocular surface disorders like chemical injuries, Stevens Johnson's syndrome etc.
- Corneal edema (swelling) unresponsive to medical treatment.
- Immunologic disorders of the cornea.
- Allergic eye diseases.
- Ocular surface tumours.
- Damage from eye injury.

What should patients in need of a corneal transplantation do?

Patients in need of corneal transplantation should enrol themselves at a centre offering such facilities. As soon as a donor cornea is available, the patient-in-waiting is informed and called for the transplant.

The corneal transplantation procedure

Corneal transplantation is mostly carried out under local anaesthesia. General anaesthesia is needed in children. The recipient's cloudy cornea is removed and the clear donor cornea is stitched in its place.



Technique of corneal transplantation

Can a transplant rejection occur?

Of all the organ transplants in the human body, corneal transplantation has the best results and the least chances of rejection. Rejection is relatively more common in penetrating keratoplasty than in lamellar keratoplasty. Symptoms of rejection are redness of the eyes, pain, watering, blurred vision and extreme light sensitivity. Suitable measures are available to treat corneal graft rejection.

Newer techniques of corneal transplantation

Now-a-days, depending on the extent, location and type of corneal disorder, variations of the corneal transplantation procedure are successfully employed.

- **ALK (Anterior Lamellar Keratoplasty):** In this procedure, only the front part of the cornea is transplanted.
- **DSAEK (Descemet's Stripping Automated Endothelial Keratoplasty):** In this procedure, only the back portion of the cornea is transplanted.