

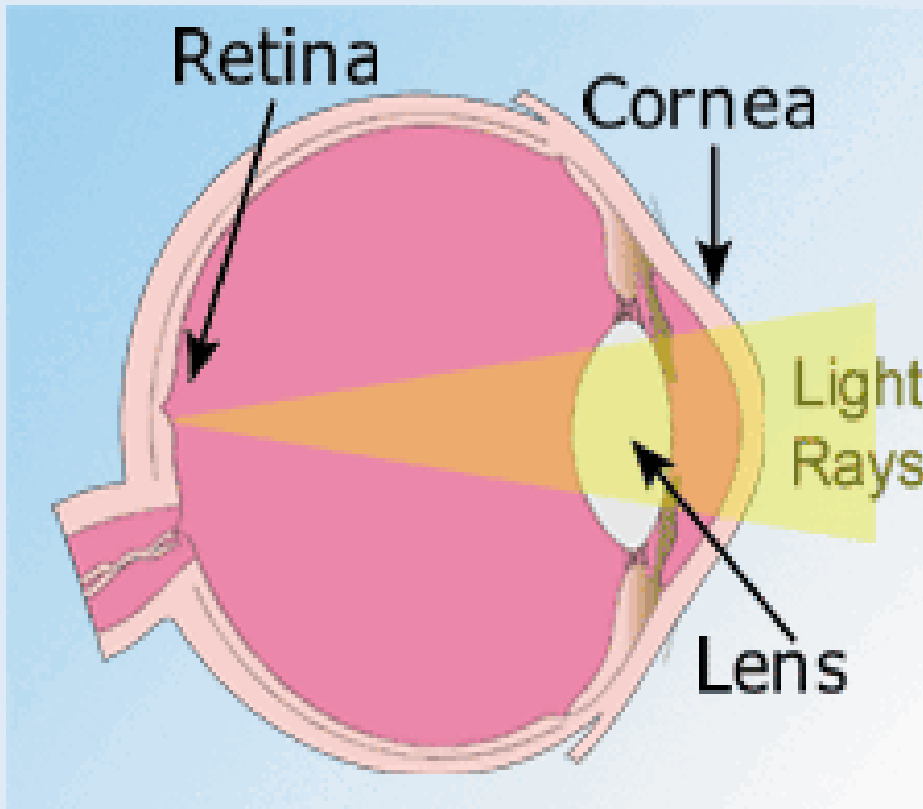
PRESENTATION ON LASIK



Welcome to Our
LASIK Centre
Chennai



How do we see?



Eye Structure (Normal)

The eye is like a camera. In a camera, light passes through a lens system back onto the film.

The cornea and lens are at the front of the eye (anterior chamber) and are similar to a camera's lens system.

The retina is located at the back of the eye (posterior chamber) and is similar to the camera's film.

In normal eye, light rays of an image pass through the cornea and the lens and are focused directly on the retina to produce a clear image.



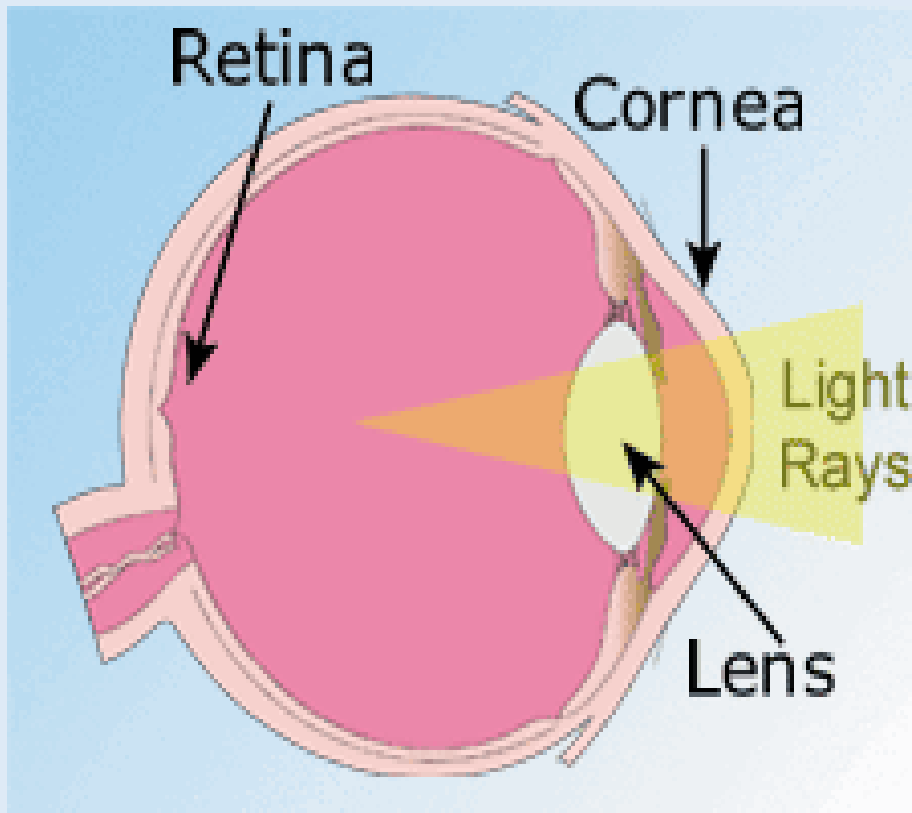
Refractive Error : It is an error in the focusing of light by the eye.

Refractive Errors are :

- Myopia, or Nearsightedness (Minus Power)
- Hyperopia, or Farsightedness (Plus Power)
- Astigmatism (Cyclindrical Power)



MYOPIA (NEARSIGHTEDNESS)

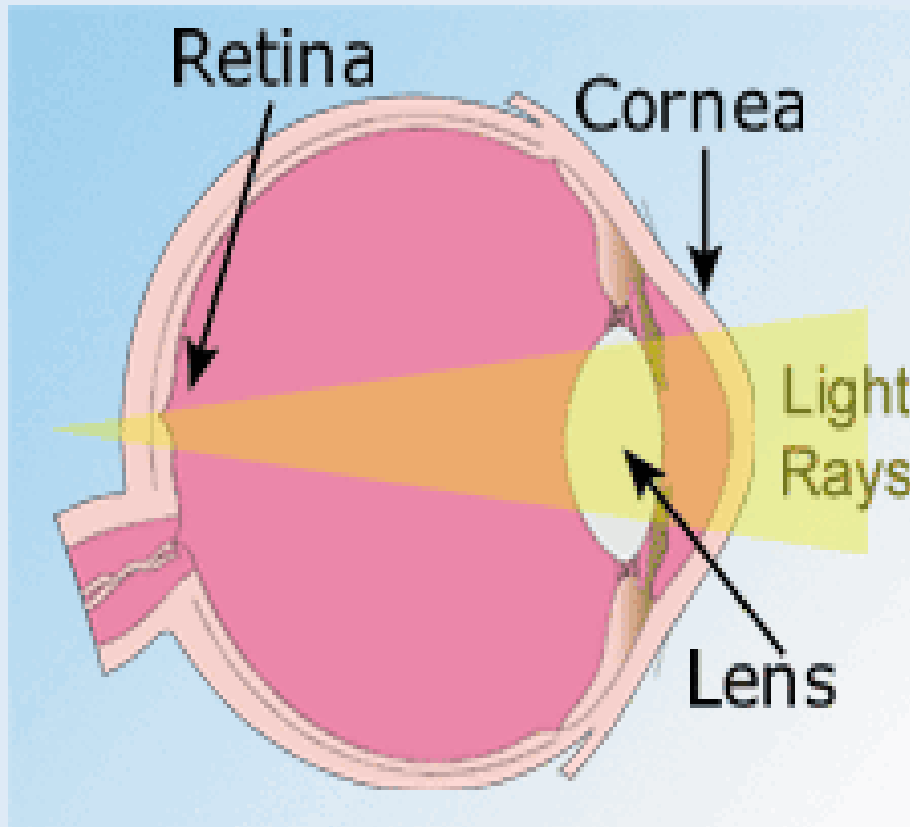


A myopic eye is longer than normal or has a cornea that is too steep, so that the light rays focus in front of the retina.

In Myopia : Near objects look clear, but distant objects appear blurred



HYPEROPIA (FARSIGHTEDNESS)



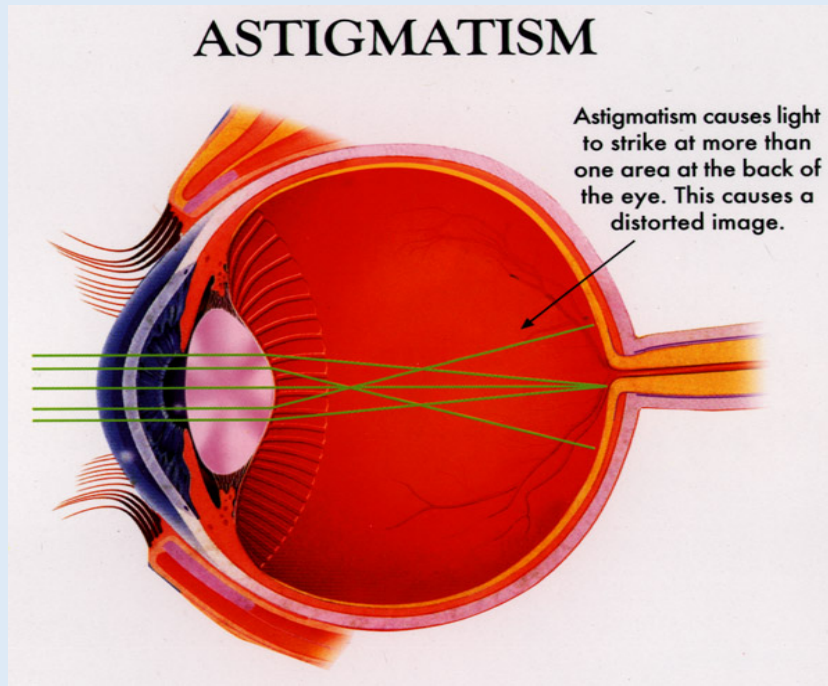
Hyperopia is term used to describe the condition of being farsighted.

The causes of hyperopia are typically genetic and involve an eye ie too short or a cornea ie too flat, so that images focus at a point behind the retina.

People with hyperopia can usually see distant objects well, but have a trouble focusing on nearby objects.



ASTIGMATISM



Astigmatism distorts or blurs vision for both near and far objects.

It's almost like looking into a fun house mirror in which you appear too tall, too wide or too thin.

The cornea is the clear front window of the eye. A normal cornea is round and smooth, like a basketball. When you have astigmatism, the cornea curves more in one direction than in the other, like a football.

It is possible to have astigmatism in combination with myopia or hyperopia



TREATMENT FOR REFRACTIVE ERRORS

So far Spectacles and Contact Lenses have provided ideal optical correction:



Eyeglasses or contact lenses are the most common methods of correcting refractive errors.

They work by refocusing light rays on the retina, compensating for the shape of your eye.

If any one is not happy about the above options , then you may go for refractive surgery.

Refractive Surgery is intended to reduce a person's dependence
on
glasses or Contact Lens.



Are you an Ideal Candidate to under go Refractive Surgery ?

If you are considering corneal refractive surgery, you must:

- Be at least 18 years of age, with a stable refraction for the past 6 months to 1 year.
- Have healthy eyes that are free from any eye diseases or corneal abnormalities (Eg Scar, Infection,etc)
- Be able to lie flat without difficulty.
- Be able to tolerate topical anasethsia.
- Realistic expectations and know the risks & benefits.
- Those with a good corneal curvature, Pupil Size and adequate corneal thickness



You are probably NOT an Ideal Candidate for refractive surgery if:

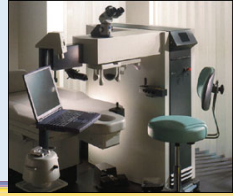
- You have unstable Refractive error & Under age (less than 18 Years)
- You are pregnant or nursing.
- You are actively participate in Contact sports like boxing, wrestling or other activities in which blows to the face & eyes are a normal occurrence.
- You have a disease or are on medications that may affect wound healing process. (connective tissue diseases (Rheumatoid Arthritis), Auto immune diseases (Eg SLE) and immunodeficiency diseases (AIDS) & Diabetes,etc)
- You have large pupils / You have thin Cornea.
- You have had previous surgery – like RK , P R K, etc.
- You have Keratitis Sicca (Advance dry eyes) / You have cataracts.
- Your eyes are Amplyopic(Lazy eyes) / You show signs of Keratoconus or any other .
- condition that causes a thinning of the cornea.

If you are a contact lens wearer you have to discontinue the use of the same at least 2 weeks prior to appointment. During this period you can wear spectacles



WHAT IS LASIK ?

- Procedure uses computer controlled Excimer laser to reshape cornea.
- Surgical procedure to correct
 - Myopia (Near Sightedness)
 - Hyperopia (Far sightedness)
 - Astigmatism(Cylindrical power / Distorted Vision)
- LASIK is acronym for Laser Assisted In Situ Keratomileusis



REFRACTIVE SURGERY : LASIK

LASIK : In LASIK a thin hinged flap of cornea is created with microkeratome and lifted to one side in order to allow laser treatment to the deeper part of the cornea.

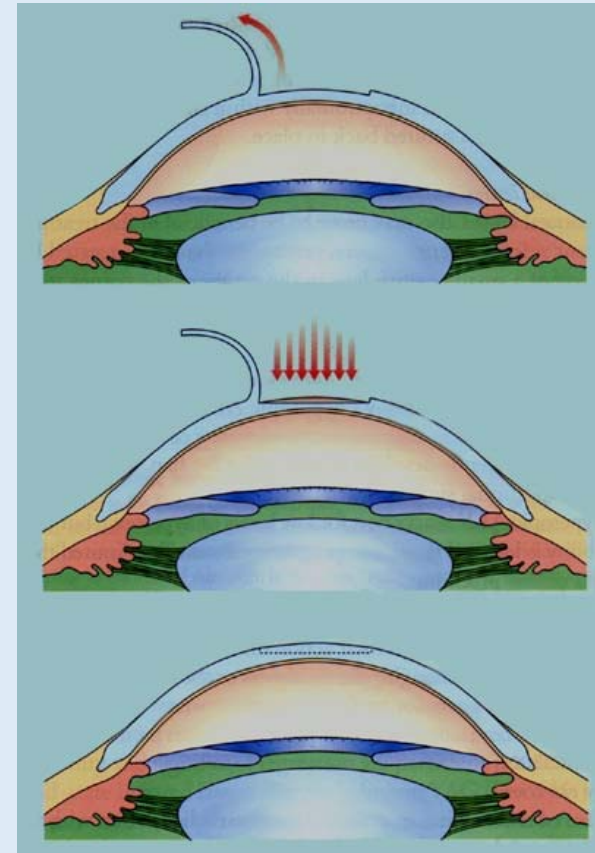
The flap is then repositioned in its original position. Improvement in vision is noted right from the next day.

LASIK treatment can be performed for both eyes on the same day.

It is an out Patient Procedures.

Advantages of LASIK :

Lack of discomfort / Faster rehabilitation / Greater stability





REFRACTIVE SURGERY : EPI - LASIK

EPI LASIK is a procedure, which combines the advantages of PRK and LASIK.

The superficial layer of the Cornea (Epithelium) is separated with Epi microkeratome simmilare to LASIK.

Excimer Laser is used correct the power superficially and soft bandaged contact lens is placed in the eye for 3 -4 days after the procedures and then removed .

Mild Pain / discomfort will be there in this procedures, hence one by one or both eye epi lasik to be decided by the patient.

Majority of the patients are having both eyes same time.



KEY DIFFERENCES BETWEEN: LASIK & EPI LASIK

Upto : - 5 D (Based on your power & Corneal thickness , LASIK Vs EPI LASIK to be decided)

More than (- 5 to - 12 D) power EPI LASIK is not possible, ONLY option is LASIK (Based on your power & Corneal thickness)

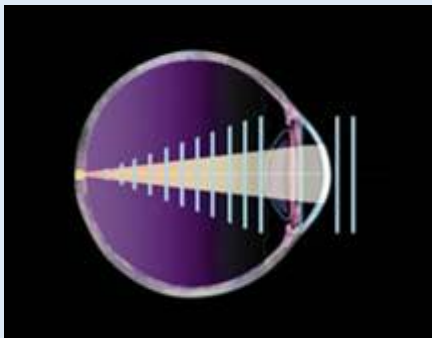
	EPI LASIK	LASIK
Pain & Discomfort	Moderate	Mild
Functional Visual recovery	1 -2 weeks	Clear vision from the following day
Corneal Haze	Mild	Rare / less
Stable Refraction	1 month	2 weeks
Corneal Haze	Rare	Nil
Bandaged Contact Lens	BCL for 4 days	No BCL
Unilateral / Bilateral Procedures	Unilateral / Bilateral	Bilateral
Procedure involved	Epithelial flap is raised	Epi & stromal layer flap is raised
Best For	Thin Cornea (if Adequate to correct the power)	Most patients with the accepted criteria
Complications	Wrinkling of the corneal flap	Striae, Flap related problems / epithelial ingrowth, Regression of effect, infections. (So far we have not come across any of this, but it is existing in LASIK Procedures)

Note : High Power and thin Corneal thickness and those who are not eligible for LASIK / EPI LASIK, Based on the ocular findings the other options like : Implantable Contact Lens / Clear Lens Extraction may be considered – Pros & Cons of the same will be discussed on the day of your consultation by our Refractive Surgeon.

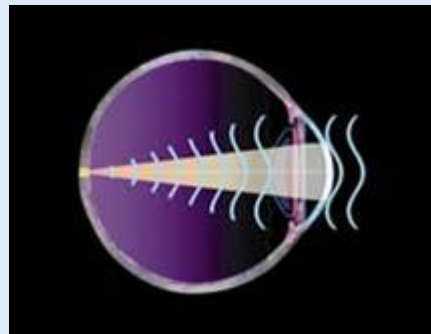


REFRACTIVE SURGERY : CUSTOM / WAVE FRONT LASIK (A “TAILOR – MADE” APPROACH)

- Our Centre is proud to be offering Custom LASIK to our patients. Just like fingerprints are unique to an individual so are their eyes.
- With the Wave front technology individualized laser correction can be obtained to correct the individual’s unique imperfections in their vision
- It Produces a detailed map of your eye as unique as your fingerprints.
- Generates digital information which is transferred directly to the laser used in your procedure, to provide a new level of precision and accuracy.
- Custom LASIK is available to patients with Myopia and Hyperopia with and without Astigmatism.



Normal Wave front

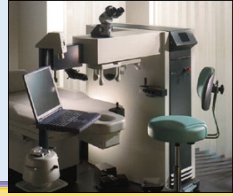


Aberrated Wave front

Advantages :

- Lack of discomfort
- Faster rehabilitation
- Greater stability
- Improves retinal image resolution
- Improves contrast
- Results in super vision

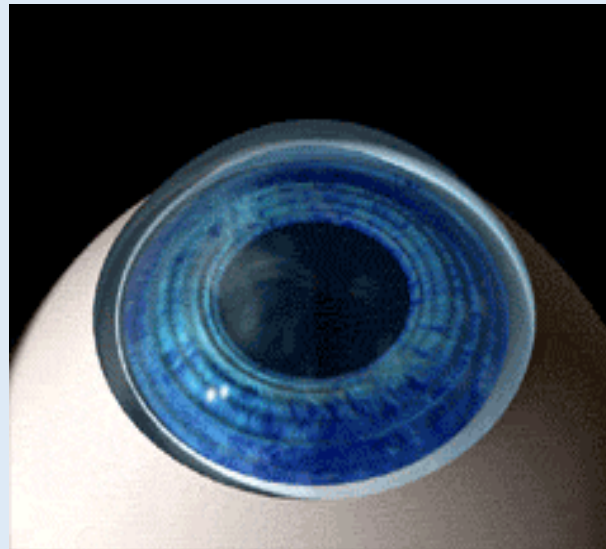
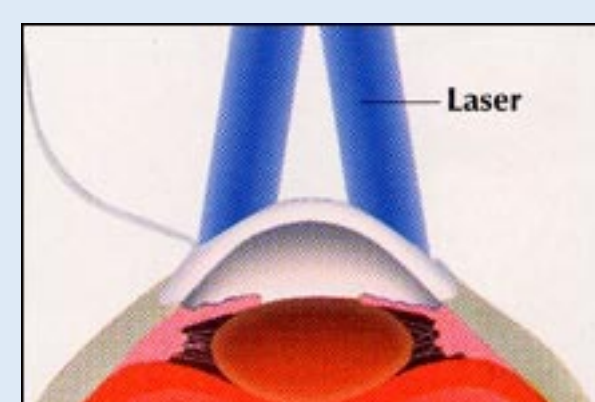
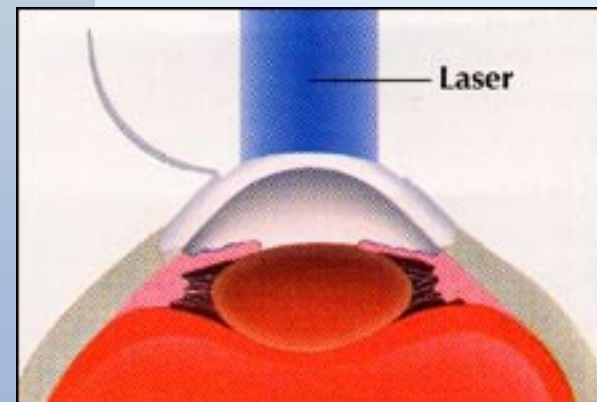
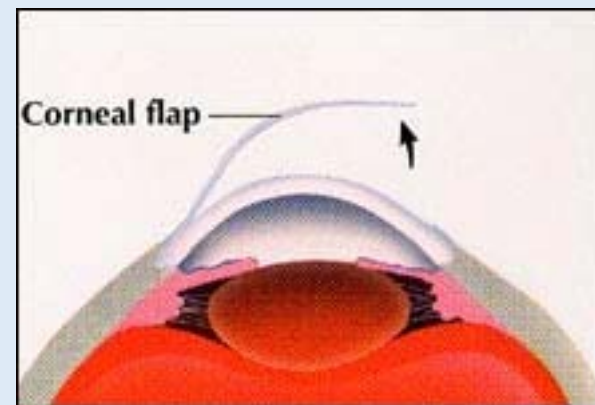
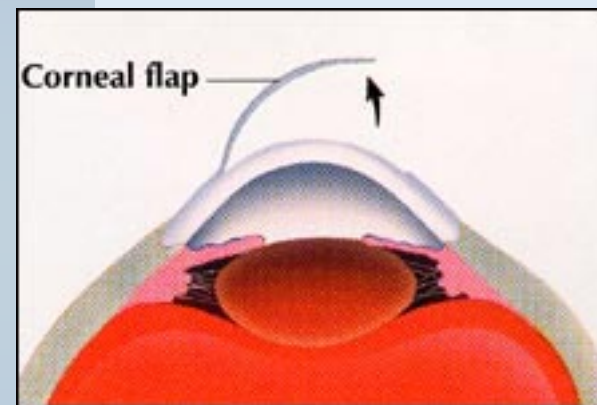
This technology: to be decided based on your eye examination.



Reshapes of Cornea in Myopia & Hyperopia

MYOPIA

HYPEROPIA



LASIK PROCEDURES

Cornea is made flatter

Cornea is made steeper



LASIK PROCEDURES ...

LASIK is an outpatient procedure that usually takes 5-7 minutes per eye.

The actual laser treatment usually takes a few seconds.

First you will lie on the motorized bed.

The eyes are anesthetized with eye drops only.

The head is positioned under the laser.

A soft clip keeps the eyelids gently and comfortably open during the treatment.

You will be asked to look at a soothing green blinking light during the entire procedure.

During the treatment, an instrument called the microkeratome creates a corneal flap to make it a painless procedure.



LASIK PROCEDURES

The computerized Excimer laser uses a beam of light to gently reshape the cornea so as to alter its curvature to the desired extent.

The flap when replaced on the new corneal curvature allows images to be sharply focused on the retina.

The goal is to eliminate or greatly reduce the dependence on glasses or contact lenses.

A post - procedure eye examination is performed and eye drops are prescribed.

There may be mild discomfort for a few hours after the procedure.



POST LASIK PROCEDURE – INSTRUCTIONS

Mild / Moderate tearing is expected after the procedure.

Foreign Body Sensation, Irritation & watering also expected

Small red spots on the white surface of the eye – occasionally appear.

Sensitivity to bright light /Corneal Haze – on the day the procedure.

Do`s	Don`ts
Instillations of eye drops as per the prescriptions.	No exposure of dust Do not touch / rub your eye
Cleaning of the lid margin gently with sterile tissue from the following day.	No head bath / splash of water into the eye for 2 wks
Have normal food / no any restrictions.	Do not keep open your eye too long.
Can have below neck bath from the following day.	Do not clean the eye on the day of the procedure
Blink your eyes gently & frequently on the day of treatment.	Do not swim for a month.
Can read, watch TV after the treatment	No make up / eye liner for a month
Can work computer 3 rd day of your treatment.	Avoid exercise / self-driving for a week.
Can have below neck bath from the following day.	No exposure of dust Do not touch / rub your eye
Use sunglasses when you go out / plastic shields while sleep – 2 weeks	



Possible side effect / Risks of Refractive Surgery are :

- Discomfort
- Pain
- Dryness
- Hazy or blurred Vision
- Glare
- Halos / starbursts around lights.
- Small pink / red spots on the white part of the eye
- Under / over corrections.
- Decrease in contra sensitivity

Our LASIK Consultant will discuss the Pros & Cons of the LASIK



POST LASIK MEDICATIONS:

S No	Eye Drops	Prescriptions
1	Ciplox eye Drops	2 hours on the day of the surgery 4 Times daily for 1 week & Stop
2	Betnesol N Eye Drops	2 hours on the day of the surgery 4 Times daily for 1 week 3 Times daily for 1 week 2 Times daily for 1 week 1 Time daily for 1 week & Stop
3	Refresh Tears	2 hours on the day of the surgery 4 Times daily for 6 months



Approximate Charges (Indian Rupees) for the procedures / tests:

Tests / Procedures	LASIK / Custom LASIK	EPI LASIK
Consultation	Rs 350/-	Rs 350/-
Pre LASIK Tests	Rs 1200/- per eye	Rs 1200/- per eye
Procedures	Rs 17500/- per eye	Rs17 800/- per eye
Medicine Kit	Rs 500/-	Rs 500/-
<p>(Choices of LASIK / EPI LASIK / CUSTOM LASIK Procedure will be decided based on your Ocular findings at the time of consultation) The above mentioned charges may be revised as per the management decision, to be confirmed with our centre when you come for consultation.</p>		

Our Range of Power Corrections:

Myopia	Hyperopia	Astigmatism
Upto : -12	Upto : + 6	Upto : <u>+ 6</u>
<p><i>provided all other above parameters is with in normal limits and understand the pros & Cons of the Procedures</i></p>		



OUR EXCIMER LASER SYSTEM

ALLEGRETTO WAVE – EXCIMER LASER Eye – Q (Version 1010): 400 Hz

LASIK (safe, Effective, permanent)

Lasik is done by Allegretto Wave eye Q (400 HZ) & Moria evolution 3e with epilask, microkeratome.

Allegretto Wave Eye Q is **FDA approved** to treat + 6.0 D to -12.0 D spherical errors & +/- 6.0 D of cylindrical errors.

Speed - Truly efficient 400HZ fast speed repetition minimizes effect of dehydration and external environmental influences on cornea.

Ablation Profile – It is first laser to use wavefront optimized profiles. This profile maintains corneal asphericity reducing problems with night vision.





Dr Ramaswamy Srinivasan

Inventor of Excimer LASER used for LASIK
visited SN and interacted with our LASIK
Team recently

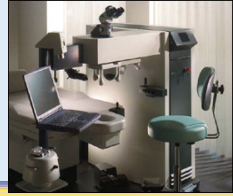


Details on Lasik
PI Contact Our Lasik Cell
JKCN – Sankara Nethralaya
No 21 Pycrofts Garden Road
Chennai – 600 006

Mobile : 0 93801 07258
0 93802 88188
044 4227 1903

E – Mail : lasik@snmail.org

www.sankaranethralaya.org



LASIK DAYS & POST LASIK FOLLOW UP DETAILS

procedures	Follow ups		
LASIK	<p>First Visit next day of your Procedure*</p> <p>1 month / 3 months / 6 months for regular examination (out station candidates to be checked with local ophthalmologist and send the report to us) , * Based on the first post op examination will be decided another follow up (90 % not required for 2nd review immediately – to be decided first follow up day).</p>		
EPI LASIK	<ul style="list-style-type: none"> • First Visit next day of your Procedure <p>2nd follow up 3-4 days later *</p> <p>1 month / 3 months / 6 months for regular examination (out station candidates to be checked with local ophthalmologist and send the report to us), * Based on the 2nd post op examination will be decided another follow up (90 % not required for 3rd review immediately – to be decided 2nd follow up day)</p>		
DURATION OF THE PROCEDURES	<p>LASIK : Day 1 : Consultation & Pre test Day 2 : Procedures (Monday / wed / Friday – our procedures days) Day 3 : First follow up review and after 1 month. Total No of days required : 4 -5 days at Chennai</p> <p>EPI LASIK : Day 1 : Consultation & Pre test Day 2 : Procedures (Monday / wed / Friday – our procedures days) Day 3 : First follow up review and 2nd review after 3-4 days later for removal of bandaged contact lens and then 1 month later Total No of days required : 8 - 9 days at Chennai.</p>		
CONSULTATION & PROCEDURE DAYS	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>CONSULTATIONS ALL DAYS – EXCEPT SUNDAYS</p> </td> <td style="width: 50%; vertical-align: top;"> <p>PROCEDURES MON / WED / FRIDAYS</p> </td> </tr> </table> <p>Consultation available only with pre appointments (at least 1 week in advance, appt to be scheduled for the consultation)</p>	<p>CONSULTATIONS ALL DAYS – EXCEPT SUNDAYS</p>	<p>PROCEDURES MON / WED / FRIDAYS</p>
<p>CONSULTATIONS ALL DAYS – EXCEPT SUNDAYS</p>	<p>PROCEDURES MON / WED / FRIDAYS</p>		