

# LASIK

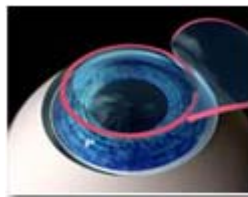
## What is Lasik ?

Laser Vision correction or Lasik takes you from wearing glasses or contact lenses to clear natural vision in a matter of minutes.

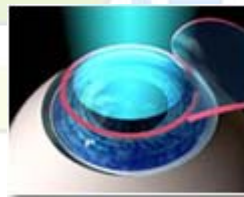
Lasik at Rushabh Eye Hospital & Laser Center is done using one of the most technologically advanced and state of the art VISX STAR S4 IR Excimer Laser Systems. The first and only Lasik machine in Mumbai to offer Custom vision correction with Iris Registration, giving patients the chance to achieve exceptional visual clarity. This Laser System can treat spectacle numbers from + 6.0 to - 14.0 with exceptional accuracy & safety. This is the most preferred technology for refractive surgeries in the USA & worldwide. This technology is superlative in term of laser delivery & clinical outcomes aimed at giving you better & sharper vision than with glasses & contact lenses.

### Procedure :

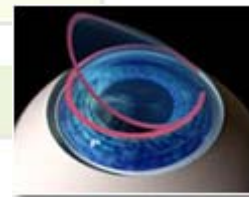
As shown below a thin protective flap of corneal tissue is folded back. The Excimer laser then reshapes tissue from the inner cornea to correct the individual's refractive error with exceptional accuracy. The corneal flap is placed back in its position where it bonds.



Flap Creation



Laser Application



Flap Repositioning

## What is Wavefront or Custom Lasik ?

Wavefront Lasik surgery aims to achieve better vision than standard laser treatment or glasses and contact lenses. This gives the patient the benefit of having Super Vision, or vision beyond boundaries. It is customized to suit the individual's eye.

Custom LASIK or Custom Wavefront LASIK, treatment replaces 'the one treatment fits all' with a procedure that is tailored to the individual eye. While standard laser eye treatment (without Wavefront guidance) gives very high quality results for the majority of patients, many peoples' eyes are not 'standard'. Their eyes might require a specially tailored treatment.



Nature has designed the eye like an Optical System, similar to something like a telescope. When you see some object, light rays from that object pass through different layers of the eye and then create an image of that object. When light passes through different layers the rays are subject to being distorted by the imperfections found in the cornea and the lens.

The distortions that are created are referred to as "aberrations." The vast majority- 80% or more--of these aberrations create common refractive errors, such as nearsightedness, farsightedness and astigmatism, which can be treated glasses and contact lenses, or by Standard Laser Correction. The remaining 20% of optical aberrations are known as "higher order aberrations". These are not corrected by Conventional or Standard Lasik treatment. Higher-order aberrations, cause the visual glare and halos that cause night vision problems, and affect quality of vision. It is seen in everyday life as glare experienced during night driving, surrounding car headlights, streetlights etc.

To achieve a customized corneal shaping, the higher order aberrations are measured using a Wavefront analysis system called an Aberrometer .The Aberrometer System lets the surgeon see refractive aberrations in clear and accurate, rotating 3-D images. These cannot be seen by regular or standard testing .This information is then transferred to the laser system, thus achieving Customized Treatment designed to suit your eye.

## Custom Lasik & Night Vision

Wavefront or Custom Lasik gives a big advantage to those with large pupils and poor night time vision. The optical performance of the eye is measured at each and every place on the cornea, including the part which is used when the pupil is large. Laser treatment is then programmed to each tiny part of the corneal surface so that every area of the cornea gets the best correction. Contrast sensitivity in low lighting levels is increased and the risk of developing night time halos and glare is greatly decreased.

## What is Epi Lasik ?

Epi-Lasik is a new advanced Lasik Procedure. Epi- Lasik is the treatment of choice for patients with very high glass numbers.

Epi-Lasik is similar to Lasik but with slightly different benefits. One enormous benefit of Epi-lasik is that it may allow patients with thin corneas who do not qualify for Lasik, to improve their vision perfectly and very safely with laser technology. Like Lasik the visual recovery is fast and very safe.

### CUSTOM WAVEFRONT LASIK CAN IMPROVE YOUR CHANCES OF:

- EYESIGHT THAT'S 20/20 OR BETTER
- VISION BETTER THAN WHAT YOU HAD WITH GLASSES OR CONTACT LENSES
- INCREASED VISUAL CRISPNESS FOR BETTER OVERALL QUALITY OF VISION
- REDUCES NIGHT VISION PROBLEMS DUE TO GLARE AND HALOS
- IMPROVED CONTRAST SENSITIVITY

Rushabh Eye Hospital & Laser Center is the only  
center in Mumbai city to offer this Technology

## Compare Different Laser Technologies

This table compares and contrasts the advantages and disadvantages of most currently available laser systems in the United States. Better features are highlighted in "**GREEN**", less desirable in "**YELLOW**" and least desirable features in "**PINK**".

	VISX STAR S4 IR	WAVELIGHT ALLEGRETTO	BAUSCH & LOMB	LADAR VISION 4000/6000	NIDEK EC 5000
<b>Customized Wavefront Treatments</b>	Yes - Widest FDA approval of any laser system worldwide	Limited	Limited	Limited	No
<b>Wavefront Resolution</b>	Fourier algorithm offers highest resolution of wavefront error	Zernicke algorithm interpolates and smoothes data artificially	Zernicke algorithm interpolates and smoothes data artificially	Zernicke algorithm interpolates and smoothes data artificially	Zernicke algorithm interpolates and smoothes data artificially
<b>Active 3-D Eye Tracking</b>	Yes	No - 2-D only	No - 2-D only	No - 2-D only	No - 2-D only
<b>Iris Registration</b>	Yes - Centers & aligns treatment independent of pupil center migration & eye cyclorotation	No - Manual marking only - less accurate and subjective	No - Manual marking only - less accurate and subjective	No - Manual marking only - less accurate and subjective	No - Manual marking only - less accurate and subjective
<b>Compensates for pupil migration during physiologic pupil dilation</b>	Yes - centers and aligns treatment independent of pupil migration	NO	No	No - Pharmacologic pupil dilation required for tracking creates potential for centering error	No
<b>Requires peri-operative use of eye drops that impair healing</b>	No	No	Yes	Yes	No

<b>Size of Laser Beam</b>	Small and large spot for rapid treatment and optimized to reduce thermal injury to tissue	Small spot only but very high speed reduces tissue dehydration during laser photoablation	Small spot only - slows treatment and allows for tissue dehydration during laser photoablation	Small spot only - slows treatment and allows for tissue dehydration during laser photoablation	Scanning slit
	Variable spot scanning and variable rep rate reduces thermal effects	Higher speed and excellent beam characteristics may reduce thermal load to tissue	High speed and small spot can be prone to thermal and drying effects	High speed and small Gaussian spot prone to thermal and drying effects	Scanning slit creates heat that damages tissue
<b>Thermal Damage to Cornea</b>	Largest market share in the US and growing rapidly (VISX invented laser vision correction)	Limited physician acceptance to date	Limited physician acceptance to date	Shrinking physician acceptance & numerous post market complaints at FDA (see FDA MAUDE database) 6000 is currently recalled by the FDA	Shrinking physician acceptance due to aging platform
	Conservative leaving good residual for strength	Conservative leaving good residual for strength	Aggressive system that is often tissue "hungry"	Aggressive system that is often tissue "hungry"	Conservative leaving good residual for strength
<b>Physician choice</b>					
<b>Safety in conservation of corneal tissue</b>					
<b>Enhancement Rate</b>	Low - Typically less than 5%	Low - Typically less than 5%	Insufficient Data Available for Comparison	Many centers report high rates of retreatments from overcorrection	Higher reported rates due to aging platform

## Why choose Visx Star for Lasik ?

Today's laser vision correction treatments seem to nearly effortlessly free people from their dependence on glasses and contact lenses. The excimer lasers used to create this modern day miracle are some of the most sophisticated medical devices ever invented.

With over 10 million laser vision correction procedures having been performed worldwide, there is a strong competition amongst Excimer laser manufacturers to establish market position for their devices. Such competition has created unprecedented advancement in Excimer laser technology and numerous device enhancements that have served to improve procedure outcomes. The safety of the laser technology and the clinical outcomes do not depend on the Hz (e.g. 200 Hz, 400 Hz, 500 Hz) that the machine works on, but rather the laser delivery and clinical expertise.

Unlike any other Excimer laser manufacturer, VISX has been involved in the development of laser vision correction technology from the beginning. In many respects, it can be reasonably stated that VISX 'invented' laser vision correction. Many of its founders conceived of, enhanced or patented the core concepts of laser vision correction. The success of VISX, when compared to all other competing laser platforms past or present, has been primarily founded upon an unparalleled commitment and investment in Research and Development efforts in the field of laser Vision Correction technology. Today these efforts are represented by their achievement of the capacity for delivering the most sophisticated Custom Wavefront procedures in the world.

## The Visx Star is the first choice for refractive surgeons

There are more VISX systems used in the United States than all other competing laser platforms combined. That market dominance continues to increase as AMO-VISX continues to introduce additional advancements and technical innovations.

## Visx Star at rushabh

RUSHABH was the first in India to adopt VISX Star S4 Advanced System based on the benefits it provides over the other systems. Rushabh Eye Hospital & Laser Center is an authorised VISX user certified by AMO-VISX, USA.

## Why Visx is best Laser Technology for years ?

- ❖ The widest FDA approval of any laser system worldwide providing superior surgical option for more patients than any other laser platform.
- ❖ The highest level of resolution of wavefront refractive error due to the use of Fourier algorithms.
- ❖ Active 3-D eye tracking compensates for intraoperative eye movement in all dimensions. No other platform has 3-D eye tracking capabilities.
- ❖ Iris Registration (IR) – the only laser platform that centers and aligns the treatment while compensating for eye cyclorotation and physiologic pupil migration. **VISX** has the first and only fully FDA- approved, fully automated, non-contact method of alignment of the correct customized treatment to the corneal site.



- ❖ The only system that compensates for pupil migration during physiologic pupil dilation resulting in more accurate laser pulse placement.
- ❖ Variable Spot Scanning (VSS): The only platform that delivers variable beam sizes from as small as 0.65 mm up to 6.5 mm scanned over the treatment area thereby conserving tissue, optimizing treatment times, reducing corneal drying intra-operatively and reducing adverse thermal load to the delicate corneal tissue.
- ❖ Variable Repetition Rate (VRR): VRR delivers treatment at varying repetition rates, optimizing treatment time and reducing the adverse effects of thermal loading of the delicate corneal tissue.

## Lasik Testimonials

“ I am very happy with the results and now I am encouraging my friends to get LASIK done. Ten minutes of being in the laser room and a lifetime of happiness. ”

**Vinita Babra** - 31 yrs, Mktg Executive, Australia

“ I was a bit scared initially but the surgery was painless and now I see clearly than I did before with contacts. It is a relief to not be dependent on glasses and lenses and I experienced Normal vision. ”

**Deepak Kirpane** - 22 yrs, Student, Mumbai

“ It was wonderful & the vision is totally regained. Initially one should have seen me. I was so scared but after the laser now life has changed totally. I think every person who wears glasses and lenses & is looking forward to having normal vision should consider Lasik. Thanks to all the Doctors & the staff they were really helpful. ”

**Savitri Podal** - 34 yrs, House wife, Navi Mumbai.

“ I am feeling wonderful today. I could see everything with my bare eyes. On the day of my procedure I got a good V.I.P. treatment over here. Staff and doctors are excellent & very co-operative. I wanted to specially thank Dr. Savita, Dr. Jayant & Dr. Tripti for bearing me. I had so many questions & all were answered patiently. Thank you for this gift of Normal Eye sight. ”

**J. Soyanya** - 19 years, Student, Mumbai.

“ After the Lasik surgery I feel much better than before doing it. I see the wall clock clearly when I wake up in the Morning, unlike earlier where I would search for my glasses to be able to do that. I am satisfied & feel very thankful for moral support. The Doctors here made this miracle come true. ”

**Nutan Chaudhari** - 21 yrs, Software Engineering Student, Bhiwandi, Mumbai.

“ I had Epi-Lasik done on 27 / 12 / 06. I had a high glass power and Rushabh is the only center in Mumbai specializing in the Epi-lasik procedure for high power. Great !  
It's like a dream come true. Please keep the good job going. Thanks & Best wishes. ”

**Nithya Satish** - 20 yrs, Student, USA.

“ Very good. The doctors are very helpful and helped in all aspects of the Lasik treatment. I recommend Lasik to all those who would like to get rid of glasses. This Hospital takes care of you. ”

**Rajesh Das** - 27 yrs, Software Professional, Panvel.

“ Wonderful experience, New, initially scared, but everyone was and is very helpful. Thank you ! ”

**Mitul Shah** - 21 yrs, Mulund, Mumbai.

“ Experience about lasik - It was very good, now I can see very well. All doctors are very helpful & very co-operative. My eye sight is very clear now than before. I really Thank all of you. ”

**Disha Tank** - 24 yrs, Recruitment Executive, Mumbai.

“ Overall a nice experience. The team of doctors is very helpful and encouraging. Thankyou ! ”

**Zubin Kuvadiah** - 22 yrs, Engineering Student , USA.

“ Good and Great Experience, Everyone was very good. The staff is also very good & helpful encouraging and always spreading love and happiness. Thank you ! ”

**Naseem Khan** - 20 Yrs, Merchant Navy Cadet, Mumbai.

## Frequently asked questions for Lasik

We want you to be as confident as we are in our technology and procedures, so here are the answers to a selection of the questions we are most commonly asked. Don't forget that our specialists are available by phone to answer any other questions you may have, so please feel free to ask.

### What is LASIK ?

LASIK stands for LASER IN-SITU KERATOMILEUSIS. It is a form of laser vision correction that is capable of correcting a wide range of glass numbers. The procedure uses a computer-controlled Excimer laser to correct your vision. Lasik is a permanent correction of your glass number.

### Does LASIK hurt ?

Laser eye surgery treatment is virtually painless. However, you may experience some mild to moderate discomfort and watering of the eyes for a few hours after a LASIK treatment. It is usually performed under eye drop anaesthesia. These eye drops numb your eye for about 10 minutes during which the procedure is usually completed.

### How successful is laser eye treatment at Rushabh ?

Our success is built upon giving our patients the very best outcome that can possibly be achieved through laser correction. We attribute our Laser technology and the expertise of our Lasik Specialists to give you an individualized laser correction based on your eye needs. This has enabled us to give our patients sharper, better and clearer vision than what they experience with glasses and contact lenses. We maintain the highest standards of safety and patient care. The percentage of our patients achieving 6/6 or 20/20 vision is 97.5%.

### Do the results from laser treatment last ?

Most of the eye growth takes place upto the age of 18 years. After this the eye number tends to stabilize and not change. Lasik should be done after the stability of the glass number has occurred for at least 1 year. The results are then permanent.

### Does Laser Technology play an important role in how well the number is corrected?

Laser technology used plays an extremely important role in the Laser Vision Correction. By choosing your laser technology and choosing a reputed Lasik team, you will ensure that you get the results of better, sharper and safe natural vision. Ensure that you get the Doctor's personal attention, he / she can answer all your queries and that he / she is certified in Laser Correction & Refractive Surgery. To compare different Laser technologies in use today please click on the website.

[www.lasikindia.net/](http://www.lasikindia.net/)

### How long after laser treatment can I see ?

Visual recovery after treatment is rapid. Most people achieve good vision the day after surgery and find that their eyes feel fairly normal 24 hours later. You will be able to resume your routine activities like driving, watching T.V, Reading and working on the computer within 2 days. However, your sight will improve even further, and the very best vision could take two weeks to achieve.

## What do I need to do, if anything, before the initial consultation & check up ?

Once you have booked a time for a consultation on 91-22-25288623 / 25282232/ 9833411425 or through the website or email [info@rushabheyehospital.com](mailto:info@rushabheyehospital.com) you will be asked a number of simple questions that will help us to prepare for your consultation.

We would ask that you stop wearing soft contact lenses 3-4 days prior to your lasik check up as they may affect the readings we obtain relating to your eyes. If you wear semi soft lenses you will need to stop wearing the lenses for 3 weeks. Your check up will take about 45 minutes during which you will be obtaining information about the procedure. After the check up the lasik specialists will give you in-depth knowledge about what you can expect and achieve as.

## Can both eyes be corrected at the same time ?

Because of increased safety and the predictability of the procedure, world over and at Rushabh both eyes are treated at the same time.

## Should I Opt for Standard / Conventional Lasik or Wavefront Lasik ?

Standard or Conventional Lasik is good if you are fine with the vision that you experience with your glasses and lenses. But if you wish to opt for better quality, sharper vision and a more advanced laser technology then you must consider the option of Wavefront Custom Lasik. This is the recommended form of Lasik by NASA for their astronauts on the VISX STAR 4 IR. The difference to the pricing is marginal, but the visual results after Wavefront Lasik are highly superior. The reason we have opted to keep Wavefront Lasik priced economically at Rushabh, is to enable more people to opt for this advanced form of treatment.

## How can I get more information on Lasik ?

To get more information on whether Lasik is suitable for you , we can be contacted at

- ✦ Tel : + 91- 22- 2528 8623 / 91- 22- 2528 2232 or 9833411425 between 10 am - 8 pm
- ✦ E mail : [info@rushabheyehospital.com](mailto:info@rushabheyehospital.com)
- You may also visit our website [www.lasikindia.net](http://www.lasikindia.net)