

## VISIONARY INSIGHTS



Volume 2: Monthly In-house Newsletter of Sankar Foundation Issue 2: August 2025



## Corneal Transplantation in India vs. the West India vs. the Western World: A Comparative Perspective

Corneal blindness affects millions of individuals worldwide. posing a significant public health challenge. Corneal transplantation remains the most effective and widely accepted treatment for restoring vision in affected patients. While the procedure is well-established in both India and Western countries, the landscape varies considerably in terms of infrastructure, accessibility, donor availability, and technological advancement. This editorial delves into the evolving state of corneal transplantation in India and contrasts it with practices in the Western world.

Corneal Transplantation in India Progress and Challenges: India carries a disproportionate burden of corneal blindness, with approximately 120,000 new cases reported annually. Despite this daunting figure, the country has made notable progress in expanding access to corneal transplants and improving surgical outcomes.

Strengths: India's growing eye bank network is a cornerstone of its progress. With over 700 eye banks and retrieval centres, institutions like the Eye Bank Association of India (EBAI) have played a pivotal role in streamlining cornea collection and distribution. Government initiatives such as the National Programme for Control of Blindness (NPCB) have further bolstered awareness, funding, and outreach. Additionally, India benefits from a large pool of skilled ophthalmologists trained in keratoplasty and advanced surgical techniques.

**Challenges:** Despite these strengths, several obstacles persist. A significant donor shortage continues to hamper transplantation efforts, often due to cultural and religious beliefs that discourage eye donation. Infrastructure gaps are particularly pronounced in rural areas, where access to specialized care and surgical facilities remains limited. Furthermore, inadequate post-operative follow-up and patient education can negatively impact graft survival and long-term outcomes.

#### **Western World: Established Systems and Innovation**

In contrast, countries such as the United States, Canada, and those in Western Europe have developed mature systems for corneal transplantation, supported by robust healthcare infrastructure and technological innovation.

Strengths: High donor availability is a key advantage, thanks to well-organized organ donation systems that ensure a steady supply of corneas. Advanced surgical techniques like Descemet Membrane Endothelial Keratoplasty (DMEK) and Descemet Stripping Automated Endothelial Keratoplasty (DSAEK) are widely practiced, offering improved outcomes and faster recovery. DSAEK, in particular, is easier to perform due to its thicker graft, which is more robust and easier to manipulate. Most patients undergoing DSAEK achieve visual acuity of 20/30 or better. While DMEK provides sharper vision

K. Banger Run

### **Sankar Foundation Celebrates Independence Day with Patriotic Fervour**

Sankar Foundation proudly joined the nation in celebrating Independence Day at its campus, marked by a spirit of patriotism and unity. The Chief Guest, Sri D. Srinivasa Rao, Chief General Manager, Hindustan Shipyard Ltd., ceremoniously hoisted the National Flag and reviewed a vibrant parade presented by the students of the Optometry College.

On this momentous occasion, Sri A. Krishna Kumar, Managing Trustee, graciously conveyed his warm greetings to the medical fraternity and staff of the Foundation.



In his address to the assembled employees and students, Sri Srinivasa Rao lauded the Foundation's commendable efforts in combating avoidable blindness and extending accessible eye care services to underserved communities. Sri K. Radhakrishnan, General Manager, highlighted the key milestones and achievements of the Foundation in its ongoing

#### Founder's Day Celebrations : Competitions **Inspire Young Minds Across Visakhapatnam**

To promote eye health and raise awareness about preventable blindness, Sankar Foundation organized a series of engaging competitions for school and college students in Visakhapatnam from August 20th to 26th. The initiative was part of the 94th birth anniversary celebrations of Late Atmakuri Sankar Ráo, fondly commemorated as Founder's Day on 2<sup>nd</sup> September.

The events received an overwhelming response

from educational institutions across the city, with a total of 595 students participating and showcasing their creativity, knowledge, and passion for social causes.

Winners will be felicitated on September 1st during the Founder's Day celebrations, honoring the legacy of a visionary whose mission continues to inspire communitydriven healthcare. The events were organized by the Training Department headed by Prof Krishna Prasad and under the guidance of Sri V Ramesh Kumar, DGM (PC & CR) Sri Vinod Kumar, Smt Bhuvana, Smt Alekya, Smt Jaya, Smt Komala.

(cont...2nd page)



## Performance at a Glance

Total Eye Surgeries
4,90,331 Since Inception
Total OP Screened
28,47,668 Since Inception

# Corneal Transplantation in India vs. the Western World: A Comparative Perspective

and lower rejection rates, DSAEK offers greater surgical ease and broader applicability. The choice between these techniques often depends on patient-specific factors, surgeon expertise, and resource availability - a critical consideration in regions like India.

Integrated healthcare systems further enhance patient care in the West. Comprehensive insurance coverage and centralized medical records facilitate better follow-up and continuity of care, contributing to higher success rates.

Challenges: Despite these advantages, Western countries face their own set of challenges. Cost barriers can be significant, even for insured patients, making procedures less accessible to certain populations. Additionally, while donor availability is generally high, demand can still outpace supply in some regions, leading to waiting lists and delayed treatment.

Corneal transplantation continues to evolve globally, with India making commendable strides despite systemic challenges. By learning from the innovations and integrated systems of the Western world, India can further enhance its transplantation outcomes. Bridging gaps in infrastructure, increasing donor awareness, and expanding access to advanced surgical techniques will be key to addressing the burden of corneal blindness more effectively. The World Health Organization (WHO) also recognizes the importance of addressing corneal blindness globally, highlighting the need for increased eye donation and improved access to corneal transplantation.

In the realm of sight, eyes reign as silent kings.

## **Celebrates Independence Day with Patriotic Fervour**

The dignitaries distributed prizes to winners of various competitions organized to commemorate the occasion, fostering a sense of





celebration and engagement among participants. The event was graced by the presence of Dr T. Raveendra, Sri V. Ramesh Kumar, Deputy General Manager (PC & CR), Sri K.V. Venugopal, Deputy General Manager (Operations), along with numerous employees, students, and security personnel, all of whom contributed to the success of the celebration.

#### **Ganesh Chaturthi Celebrations**



Sankar Foundation celebrated Lord Ganesh Chaturthi at its premises, offering prayers for the prosperity and well being of its employees, provide strength to its equipment, and growth in hospital operations. Sri K Radhakrishnan, GM, along with other officials, participated in the pooja.

# Dr T Raveendra participates at Glaucoma India Education Program



The Glaucoma Society of India (GSI), in partnership with Aravind Eye Care System and Indoco Remedies, hosted a Continuing Medical Education (CME) session aimed at advancing glaucoma care practices at Kanyakumari on 24th August, 2025.

The program featured insightful presentations by leading experts Dr. R. Ramakrishnan, Dr. Krishnadas, Dr. Devendra Maheshwari, and Dr. T. Raveendra, HOD, Glaucoma Department, Sankar Foundation, covering a wide spectrum of topics

including clinical diagnosis, procedural innovations, and contemporary surgical techniques.

The event wrapped up with an engaging quiz for postgraduate students and dynamic interactive discussions, fostering deeper learning and collaboration.

Sankar Foundation Eye Hospital extends its heartfelt appreciation to Dr. T. Raveendra, Executive Member – South Zone (GSI), for his valuable contributions and exemplary leadership throughout the program.



### Optometrists: The Frontline Guardians of Vision at Sankar Foundation

## SPECIAL FOCUS

Optometrists play a pivotal role in eye hospitals, serving as the essential bridge between patients and ophthalmologists. Here at Sankar Foundation Eye Hospital, their expertise lies in the early detection of refractive errors and the accurate prescription of corrective lenses. Beyond clinical assessments, they provide personalized counseling to patients both adults and children ensuring they understand the importance of wearing the right glasses for optimal vision and eye health.

At Sankar Foundation Eye Hospital, their role goes far beyond prescribing glasses they are instrumental in the early detection of refractive errors, which, if left unaddressed, can lead to long-term visual impairment.

These professionals conduct comprehensive eye examinations, identify vision problems, and prescribe



A strong and experienced Optometrists delivering quality services at Sankar Foundation

corrective lenses tailored to each patient's unique needs. They also play a vital role in patient education, counseling individuals both adults and children on the importance of wearing appropriate eyewear and maintaining eye health. Their empathetic approach helps patients feel informed and empowered in managing their vision.

Sankar Foundation is equipped with c u t t i n g e d g e diagnostic and t h e r a p e u t i c equipment, enabling its optometrists to deliver highquality care with precision and efficiency. The hospital currently has a team of 18 e x p e r i e n c e d

optometrists who manage a high volume of outpatient consultations daily, ensuring that every patient receives timely and personalized attention.

The Optometry Department is led by Sri K.V. Venugopal, Deputy General Manager (Operations), whose leadership ensures operational excellence and patient satisfaction. He is supported by Sri Ratnamraju, Manager, who oversees the day-to-day functioning of the department and maintains the high standards of service delivery.

Together, this team exemplifies Sankar Foundation's commitment to accessible, affordable, and quality eye care. Their work not only improves individual lives but also contributes to the broader mission of eliminating avoidable blindness in the region.

The week-long competitions organized for school and college students received an overwhelming response. A total of 518 students from 16 schools and 77 students from 10 colleges actively participated.

The panel of judges who evaluated the competitions included: Sri G srinivas, Dr.Ashish Gupta, Sri Gopi Krishna, Mr. MSP, Mrs Dollydhillon, Dr Sudha, Mrs Nomitha Karmakar, Mrs .Jumana Topiwala, Mrs Rajini, Mrs Pallavi Venkatesan and Dr Sowmya.





Judging with Insight:
Esteemed judges attentively evaluate the students' artwork, appreciating the creativity and effort behind each piece.





Judges keenly evaluating the children competitions





**Creative Vision:** Students express their artistic flair by painting on unused optical lenses at Sankar Foundation, celebrating Founder's Day with vibrant imagination.

A Moment to Remember: Judges join Smt. Usha Krishna, DGM & Incharge of Madhurawada and Maddilapalem Eye Hospitals, for a commemorative group photo marking the event's success.

A world sculpted by dreams lives in those eyes.





# Sankar Foundation Expands Outreach with Eye Screening Camps in August

The month of August marked a significant expansion of Sankar Foundation's outreach initiatives, with impactful eye screening camps conducted in collaboration with leading corporates such as Hindustan Aeronautics Ltd. (HAL), the Barzilai Foundation, Brandix, Kanakamahalaxmi Co-Operative Bank. These camps were held alongside the Foundation's regular rural eye care programs-41 in this month, reinforcing its commitment to eliminating avoidable blindness and delivering accessible eye health services.

#### HAL supported Eye Camp Inaugurated at Sunabeda

In alignment with its mission to serve society, Sankar Foundation, with the



Sri Sudansu Mohan Jha, Executive Director, HAL undergoing eye creening Test





support of HAL, organized a three-day free eye screening camp beginning on 6th August 2025 at Sunabeda, Koraput District, Odisha, exclusively for HAL employees and their families. The camp was formally inaugurated by Sri Sudansu Mohan Jha, Executive Director, HAL.

#### **CAMP HIGHLIGHTS:**

- Total Outpatients Screened: 608
- Spectacles Prescribed: 112
- Referrals for Surgical Intervention: 20

A dedicated medical team led by Dr. Shakti Saravaran and Dr Pawan Kumar conducted the screenings. Sri M. Chandra Sekhar, Manager, along with optometrists, an optician, and supporting staff, played a vital role in ensuring the camp's success.

# **Barzilai Foundation-Sponsored Eye Camp** for School Children Inaugurated



Continuing its meaningful collaboration with Sankar Foundation, the Barzilai Foundation sponsored three free eye screening camps in August 2025 at Malkapuram High School, Sriharipuram High School & Gandhigram High School, located within the city limits.

This initiative aimed to improve the quality of life for students, staff, and teachers of government schools across the district by promoting early detection and treatment of vision-related issues. The camp was part of a broader effort to ensure accessible eye care for

Stars have nothing compared to sparkling eyes.



underserved communities, particularly school-aged children, whose academic performance and well-being are closely tied to visual health.

#### **Camps Fact Sheet:**

- Total Students & Staff Screened: 1658
- Spectacles Prescribed: 162
- Medicines Distributed: 719
- Referrals to Sankar Foundation Hospital for Surgeries: 97

This initiative reflects the shared commitment of both foundations to community health and educational empowerment.

The successful execution of the camp underscores the importance of publicprivate partnerships in advancing preventive healthcare.

## Kanaka Mahalakshmi Co-op Bank Sponsored Eye Camp



Kanaka Mahalakshmi Co-op Bank sponsored eye screening camp in association with Sankar Foundation, was inaugurated by its Chairman, Sri K  $20^{\mathsf{th}}$ Rambabu on August Chodavaram, Anakapalle district. A total of 151 Out Patients were screened and 37 patients were referred for surgeries to the main hospital at Naidutota, Visakhapatnam. Dr K Bharathi along with supporting staff screened the patients. Sri KV Somanaidu, Brach Manager, Sri Siva Prakash Rao, PRO, Sri V Ramesh Kumar, DGM (PC & CR), Sri N Appalaraju, Sr Manager (Outreach) Sankar Foundation were among those present on the occasion.



In-depth Spotlight on Corneal Health

Corneal transplantation in India is undergoing a dynamic transformation. promisina marked by both advancements and persistent challenges. While the country has made notable progress in strengthening its eye banking infrastructure and adopting advanced surgical techniques such as lamellar keratoplasty, it still struggles to meet the estimated demand for corneal transplants. Disparities in access to care, particularly in rural and underserved regions, continue to hinder equitable treatment. The COVID-19 pandemic further disrupted the sector, causing a temporary decline in donations and procedures. However, the postpandemic recovery has shown encouraging signs of resilience and innovation.

#### **Key Trends and Growth Drivers:**

India has witnessed a surge in corneal transplant numbers, reaching an all-time high in 2022-2023 despite lower collection rates. This growth reflects improved efficiency and utilization of available donor tissue. Technological advancements are also playing a pivotal role, with the adoption of new storage mediums, specular microscopy, and expanded training programs for corneal surgeons enhancing the quality and reach of care.

Lamellar keratoplasty techniques, including Deep Anterior Lamellar Keratoplasty (DALK) and Descemet Membrane Endothelial Keratoplasty (DMEK), are gaining traction across the country. These procedures offer more targeted treatment options and better visual outcomes, contributing to the overall improvement in surgical success rates

The nationwide rollout of the Hospitalbased Cornea Retrieval Program (HCRP) has significantly boosted donor cornea utilization, streamlining the retrieval process and improving tissue availability. A pilot initiative involving drone-based transport of corneas has also shown promise, potentially revolutionizing access to transplantation services in remote and hard-to-reach areas.

India's eye banking network continues to expand, with increased emphasis on infrastructure development and quality control. Public education and awareness campaigns are actively promoting eye donation and encouraging participation, helping to shift cultural perceptions and increase donor registrations.

A corneal transplant remains the gold standard for treating corneal blindness. Since the establishment of India's first

# India's Vision Revolution: Emerging Trends & Innovations in Corneal Transplantation

eye bank in 1945, the country has made remarkable strides in this field and now boasts one of the world's largest eye banking networks. Despite this progress, challenges such as logistical hurdles, limited public awareness, and underutilization of donated corneas continue to impede optimal outcomes. With cutting-edge advancements in corneal transplant technology, India now stands at a pivotal moment-poised to harness these innovations and significantly improve patient care.

## National Eye Donation Fortnight from August 25th

Innovation in corneal transplant techniques One notable advancement in corneal surgery is Intraoperative Optical Coherence Tomography (iOCT), which offers real-time imaging and continuous feedback during surgical procedures. This technology enables surgeons to monitor and adjust their manoeuvres with greater precision, enhancing surgical outcomes. Another breakthrough is the integration of femtosecond laser technology, which allows for highly accurate incisions and the creation of complex tissue patterns. This precision not only improves the alignment between donor and recipient corneal tissues but also accelerates healing and strengthens the structural integrity of the graft.

## Nursing, Allied Health, and Interprofessional Team Interventions

The nursing staff, allied health professionals, and the broader inter professional team play a vital role in the management of corneal transplantation cases. Nurses are instrumental in patient recruitment for outpatient services, assisting with corneal scraping procedures in cases of microbial keratitis, and providing clear explanations of surgical procedures and the significance of various types of keratoplasty. They also educate patients on the procurement and proper use of antimicrobial medications, steroids, and adjuvant therapies. In addition, nurses contribute significantly to patient counselling, postoperative care, and long-term follow-up, ensuring continuity of care and optimal outcomes.

#### **Persistent Challenges**

Despite these advancements, India faces a substantial shortfall in donor corneas relative to its estimated need. Only a fraction of the required transplants are performed annually, leaving many **Dr Nasrin**Director,
Medical Admn &
Training
HOD, Cornea Dept



patients untreated. Procedural delays and difficulties in

obtaining consent from grieving families further complicate the donation process.

The impact of COVID-19 exposed vulnerabilities in the system, underscoring the need for greater resilience and preparedness in the face of future disruptions. Infrastructure disparities remain a major concern, with significant variation in eye bank capabilities and access to surgical care across different regions.

Another critical issue is the underutilization of donated corneas. Ensuring that available tissue reaches patients in need requires improved logistics, better coordination, and enhanced tracking systems. Accessibility remains a challenge, particularly in rural areas where timely intervention is often not feasible due to transportation and resource limitations.

Future Outlook and Strategic Priorities: Looking ahead, India is placing greater emphasis on quality control in both eye banking and surgical procedures to ensure optimal outcomes. Continued public awareness campaigns will be vital in sustaining momentum and encouraging more widespread participation in eye donation.

Policy reforms, including potential amendments to the Transplantation of Human Organs Act-such as the introduction of presumed consent-are being considered to address the persistent donor shortage. These changes could significantly increase the availability of donor tissue and streamline the donation process.

Technological innovation will continue to shape the future of corneal transplantation in India. Advancements in surgical techniques, storage solutions, and transport logistics are expected to further improve outcomes and expand access. Bridging the gap between supply and demand will require sustained

(cont...6th page)

Clear eyes, a testament to enduring peace.





From classrooms to living rooms, the digital transformation in children's lives has been nothing short of extraordinary. With tablets replacing textbooks and smartphones becoming constant companions from an early age, today's children are immersed in screens like never before. While this tech-savvy generation benefits from unparalleled access to knowledge, entertainment, and connection, a pressing concern is quietly emerging: the toll of excessive screen time on their vision.

As digital devices become central to learning, play, and socializing, medical experts are sounding the alarm over a sharp rise in eye-related issues among children across India. Symptoms like eye fatigue, headaches, blurred vision, and worsening myopia-once common among desk-bound adults-are now surfacing in schoolyards and study rooms.

In an exclusive conversation with India Today, Ramesh Pillai, Chief Optometrist at Titan Eye+, describes this disturbing trend as a "silent pandemic." He explains how prolonged screen use, poor posture, and reduced outdoor activity are converging to affect children's eye health-often without obvious early signs.

#### Sankar Foundation Optometry Students Shine at International Vision Science Conference

Eleven Final-year B.Sc Optometry students from Sankar Foundation's Optometry College, led by faculty incharge Smt. Bhuvana Kalyani, had the privilege of attending the 4th Elite School of Optometry's International Vision Science Conference (EIVOC–2025), held at Chennai Trade Centre from August 15th to 17th.

The students actively partici-pated in the faculty development programme, showcasing their academic insights and exchanging ideas with peers and professionals. The conference featured renowned international speakers who

engaged with the students, s h a r i n g cutting-edge knowledge and global perspectives in the field of



vision science. SF Optometry students at EIVOC-2025

The eyes are the silent language of the universe.

## **MYOPIA IS SURGING AMONG KIDS: VISION IN PERIL**

This despatch delves into the root causes, early indicators, and potential solutions to this digital-age health challenge.

Healthy Eyes, Happy Kids: 5 Gentle Shifts That Make a Big Impact

The Growing Screen-Time Burden on Young Eyes Children's screen time has skyrocketed-up 52% since the prepandemic era, according to a recent study by the Journal of School Health. With digital classes, online homework, video games, and endless scrolling, kids now spend much of their day glued to screens-often replacing outdoor play and physical activity. This shift is fuelling what experts are calling a "silent pandemic" of myopia (near sightedness) and digital eye strain.

Early Detection: A Critical First Step Teachers, who closely observe children in classrooms, are often the first to spot signs of vision trouble. A recent survey of 500 schools in India found that 68% of teachers reported student complaints of headaches, eye discomfort, and difficulty focusing-all red flags for digital eye strain. These early signs should never be ignored, as timely detection is key to preventing long-term vision damage.

Understanding: Digital Eye Strain and Myopia Digital Eye Strain (DES) goes beyond blurry vision. It can involve dry eyes, trouble focusing, and frequent eye fatigue. Particularly concerning is progressive myopia-where vision deteriorates rapidly over time. Genetics also play a role: children with one or both myopic parents are three to four times more likely to develop the

condition, making regular monitoring crucial.

The 20-20-20 Rule and Smart Nutrition An easy yet powerful habit: every 20 minutes of screen time, look at something 20 feet away for 20 seconds. This gives eye muscles a much-needed break and reduces strain. Pair this with eye-friendly nutrition. Foods rich in omega-3 fatty acids, lutein, and zeaxanthin-found in leafy greens, eggs, and oily fish-can help protect and nourish developing eyes.

Creating a Vision-Healthy Environment Shielding children's eyesight requires joint action. Parents should model responsible screen habits and encourage balance; educators can push for regular breaks and outdoor activities; health professionals must emphasize timely eye exams and early interventions. Building awareness and teaching healthy eye habits early on ensures children use digital tools without compromising their vision.

Professional & Technological Support Routine eye check-ups are non-negotiable-especially for children with a family history of myopia or signs of strain. Eye care professionals can spot subtle issues that may go unnoticed at home or school.

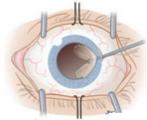
Technology is offering new hope too. Specialized spectacle lenses designed for progressive myopia are showing promise in slowing down vision deterioration compared to traditional corrective lenses.

(Contributed by **K Bangar Raju**, Editor with inputs from India Today and The Times of India)

### INDIA'S VISION REVOLUTION

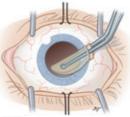
efforts to enhance infrastructure, train personnel, and ensure equitable access to care across all regions.

#### **How it Works**



The surgeon removes the diseased inner cell layer of the cornea:

The surgeon implants healthy donor tissue through a small incision



The surgeon then uses an air bubble to unfold and position the donor tissue against the patient's cornea

"The special emphasis aligns with the observance of **National Eye Donation**Fortnight being held from August 25 to September 10 by Sankar Foundation. This initiative aims to raise awareness about corneal blindness and promote eye donation as a means to restore sight.

It seeks to educate the public, dispel common myths surrounding eye donation, and inspire more individuals to pledge their eyes for this noble cause.



## **Blind Spot : Doctors Sound Alarm on Diabetes-Induced Vision Loss**

Critical Insight

Type 2 diabetes has emerged as one of the leading causes of vision loss and blindness globally. According to studies, over the past two decades, cases of visual impairment due to diabetic retinopathy have surged by a staggering 64 percent since 1990. Experts attribute this alarming rise to poor glucose control and limited access to eye care services. As more individuals live longer with diabetes, the risk of developing vision-related complications continues to grow.

#### **The Indian Challenge**

India faces a significant public health crisis, with over 100 million people currently affected by high blood sugar levels. According to medical professionals, a large proportion of diabetic eye complications could have been prevented with timely intervention.

> Diabetic Retinopathy is a leading cause of blindness among working-age individuals. It silently damages the retina's blood vessels due to persistently elevated blood sugar levels—often without symptoms until irreversible harm occurs

#### Why Is Vision Loss Increasing Among Diabetes Patients?

This special blog highlights several key factors contributing to the rise in diabetes-related eye problems:

#### **Lack of Early Screening**

Many diabetic patients—especially in rural and semi-urban India—do not undergo regular eye check-ups. Since diabetic retinopathy often begins without symptoms, it remains undetected until significant vision loss occurs.

#### Poor Blood Sugar Control

Chronically high or unstable blood sugar levels damage the retina's delicate blood vessels. This leads to leakage, swelling (diabetic macular edema), and abnormal vessel growth, all of which can cause partial or complete vision loss if untreated.

#### Longer Duration of Diabetes

The longer a person lives with diabetes, the higher their risk of developing retinopathy. With more Indians being diagnosed at younger ages, complications like blindness are appearing earlier in life.

#### Delayed Medical Attention

Early warning signs—such as blurry vision, floaters, or night blindness—are often ignored. Delayed diagnosis and treatment increase the likelihood of permanent damage.

#### Serious Complications of Diabetic Retinopathy

Unchecked diabetic retinopathy can lead to several severe eye conditions:

Description

| Swelling in the central retina, affecting sharp vision | Separation of the retina from its underlying tissue | Bleeding into the gel-like substance inside the eye | Increased eye pressure damaging the optic nerve | Reduced blood flow to the retina's central area

Dr. T. Krishna

HOD, Retina Dept

**How to Prevent** 

Vision Loss: While

not all diabetic

experience vision

loss, those with

poorly managed

blood sugar are at significantly higher

Strict control of blood sugar, blood

Annual dilated eye exams, even in

Timely treatment with laser therapy,

Awareness campaigns to educate the

Collaboration between ophthalmo-

public on diabetes-related eye risks

logists and diabetologists for holistic

anti-VEGF injections, or surgery

risk. Prevention strategies include:

pressure, and cholesterol.

the absence of symptoms

patients

care

Eventually, these complications can destroy the retina's photoreceptors lightdetecting cells leading to irreversible blindness.



| Macular Edema | Retinal Detachment | Vitreous Haemorrhage | Early-Onset Glaucoma | Macular Ischemia



Dr Krishna examining a patient on retinal disorders.



## Vision at Risk : Startling Revelations on Diabetic Retinopathy

#### **India's Growing Crisis:**

According to a meta-analysis cited by the National Institute of Health (NIH), Government of India, India faces a mounting public health challenge with over 101 million people diagnosed with diabetes. Of these, approximately 12.5% or 12 million individuals are affected by Diabetic Retinopathy (DR), a diabetes-related eye condition that can lead to blindness.

Furthermore, an estimated 4 million people in India suffer from Vision-Threatening Diabetic Retinopathy (VTDR), a severe form of the disease that poses an imminent risk to sight. Global Prevalence: 103.12 million adults worldwide were living with Diabetic Retinopathy in 2020. This number is projected to surge to 160.50 million by 2045, reflecting the global rise in diabetes.

A serious complication of DR, Diabetic Macular Edema (DME), affected 18.83 million people globally in 2020 and is expected to reach 28.61 million by 2045.

India-Specific Data: India's diabetic population continues to grow rapidly. A study published on ScienceDirect.com estimates that 12.5% of diabetic individuals in India have DR, translating to roughly 12 million cases. According

to The Times of India, 16.9% of diabetics in the country suffer from DR, and 3.6% are at imminent risk of complete vision loss—equating to approximately 3 million individuals. DR is one of the leading causes of blindness among adults aged 25–74 worldwide. Its progression is closely tied to how well diabetes is managed—poor blood sugar control, high blood pressure, and long duration of diabetes increase the risk.

- Insights by K Bangar Raju, Editor

Love is written in the language of eyes







## Clinical Snapshot Metrics August 2025 (upto 25th)

	9.5.	_ <i>'</i> .				
*	Total Eye Surgeries 2	2030				
*	Cataract Surgeries 1	471				
*	Retina Surgeries	67				
*	Retina Injections	135				
*	Glaucoma Surgeries	14				
*	Cornea Surgeries	172				
*	Pediatric Surgeries	1				
*	Orbit & Oculoplasty	39				
*	Total OP Screened 12	,654				
BRANCHES						
*	<b>Srikakulam</b> -Eye Surgeries	280				
*	OP Screened 1	434				
*	Maddilapalem-Surgeries	64				
*	OP Screened	949				
*	Gajuwaka-Surgeries	22				
*	OP Screened	870				
*	Madhurawada-Surgeries	13				
*	OP Screened	501				

Total 41 Outreach free eye camps conducted and screened large No.of patients and Performed more number of surgeries

# EDITOR K BANGAR RAJU, Dy GM (PR & Liaison)

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## WHAT IS THE RAREST EYE COLOUR IN THE WORLD?

Eyes aren't just windows to the soul-they're dazzling mosaics of human diversity. From rich browns to icy greys, eye colours span a stunning spectrum shaped by genetics, melanin levels, and evolutionary quirks.

In this article, we'll dive into the science behind these ultra-rare eye colours, explore the genetics that make them

possible, and uncover the cultural myths and marvels that surround them.

Most people fall into one of six primary eye colour categories: Brown, blue, hazel, amber, grey, and green. But nature doesn't stop there. Rare variations like red, violet, and heterochromia (where each eye is a different colour) add even more intrigue to the mix.

According to surveys, green eyes are often considered the most beautiful, admired for their mystique, vibrant hue and enigmatic charm, is the rarestfound in just 2% of the global population. But beauty aside, rarity takes centre stage.

But when it comes to true rarity, even green eyes are outshined. Some eye colours occur in less than 1% of people worldwide. These include:

- \* Red or violet eyes: Typically seen in individuals with albinism, where lack of pigment allows blood vessels to show through.
- \* Heterochromia: A striking condition where each eye is a different colour, or parts of one eye differ in shade.

## How Many Types of Eye Colours are There in the World?

While the most commonly recognised types include brown, blue, hazel, amber, grey, and green, there are also rare variations that add to the intrigue: Common Eye Colours

- Brown Most prevalent globally (70-80% of the population)
- \* Blue Second most common (8-10%)
- \* Hazel A mix of green, gold, and brown (5%)
- \* Amber Solid golden or coppery hue (5%)
- \* Grey Misty and cool-toned (3%)
- \* Green Rarest of the standard shades (2%)

The soul dances silently in the windows of the eyes.



However, if you have ocular albinism, a condition where the iris lacks melanin, allowing blood vessels to show through and create a reddish or purplish appearance, then red and violet eyes are considered the rarest in the world.

Among them, Iceland stands out, with over 74% of the population having blue eyes, and a significant portion also showing green and grey hues. Other countries with high percentages of coloured eyes include:

These countries, especially in Northern and Central Europe, have a genetic history that favours lighter eye colours due to lower melanin levels.

	Country	Blue Eyes (%)	Green/ Intermediate Eyes (%)	
	lceland	74.52%	14.15%	9.22%
	Netherlands	60.9%	11.4%	21.7%
	Denmark	64.84%	20.45%	14.5%
	Germany	39.6%	33.2%	<b>27.2</b> %
ı	<b>United Kingdom</b>	42.8%	<b>25.46</b> %	31.77%

What Is the Most Attractive Eye Colour in the World? A large-scale survey reveals intriguing preferences when it comes to eye colour beauty.

- \* Green eyes top the list as the most attractive and captivating, with 20.3% of participants having their rare and mesmerising hue.
- \* Following closely are light blue (16.9%), hazel (16.0%), and dark blue (15.2%), all of which are admired for their distinctive depth and charm.
- \* Grey eyes, known for their cool mystery, account for 10.9%, while the warm, golden glow of honey eyes attracts 7.9%.
- \* Surprisingly, brown eyes, although the most common worldwide, were rated the least attractive, garnering only 5.9%.

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