

EDITORIAL THE EVOLVING LANDSCAPE OF EYE CARE MANAGEMENT

In today's rapidly advancing healthcare ecosystem, eye care management has become a cornerstone of modern medicine, propelled by technological innovation and shifting patient expectations. The integration of A.I.-powered diagnostics, high-resolution imaging, and tele-ophthalmology is transforming how clinicians detect and treat ocular conditions delivering unprecedented precision, efficiency, and accessibility.

These breakthroughs have ushered in a new era of personalized care, streamlined clinical workflows, and expanded outreach to underserved communities. Remote consultations and mobile screening units now make it possible to deliver expert eye care in regions once considered inaccessible.

Yet, this progress brings its own set of challenges. The high cost of advanced equipment and software often hinders adoption in resource-limited settings, deepening disparities in care delivery. Simultaneously, the surging demand for ophthalmic services places immense pressure on the existing workforce, underscoring the urgent need for robust training programs and retention strategies.

Advantages of Modern Eye Care Management

The evolution of eye care is marked by a fusion of cutting-edge technology and patient-cantered innovation. Among the most impactful developments are diagnostic tools like Optical Coherence Tomography (OCT) and AI-enhanced retinal imaging. These technologies empower clinicians to detect ocular diseases with remarkable speed and accuracy, enabling earlier interventions and improved outcomes.

Patient-centric care models further elevate the standard of treatment. Integrated care pathways and digital follow-up systems ensure continuity, convenience, and customization enhancing both patient satisfaction and clinical effectiveness.

Tele-ophthalmology stands out as a transformative force, especially in regions with limited access to specialists. Remote consultations and virtual screenings are bridging the urban-rural divide, bringing expert care to communities such as those in rural India. Meanwhile, the adoption of Electronic Medical Records (EMRs) and advanced analytics enables data-driven decision-making. By tracking outcomes and analysing treatment efficacy, providers can continuously refine their approaches to meet the diverse needs of their populations.

Challenges in a Competitive Landscape

Despite these advancements, the eye care sector faces significant hurdles. Chief among them is the tension between

(cont...2nd page)

K. Ranganathan
EDITOR

Lead View

A Global Vision Crisis: Rising Eye Disease Prevalence in India & Beyond

According to World Health Organisation (WHO), eye diseases have emerged as a silent epidemic, affecting over 2.2 billion people worldwide, with India alone accounting for nearly 20% of the global blind population. From rural villages to urban centres, vision impairment is becoming increasingly common across all age groups, especially among the elderly and youth.

Among this 1 billion people, the main conditions causing distance vision impairment or blindness are cataract (94 million), refractive error (88.4 million), age-related macular degeneration (8 million), glaucoma (7.7 million), diabetic retinopathy (3.9 million). The main condition causing near vision impairment is presbyopia (826 million), a report by **WHO**.

In India

- 6.2 million people are blind, and 55 million suffer from moderate to severe visual impairment. Rural areas face 1.37 times higher blindness rates than urban regions.

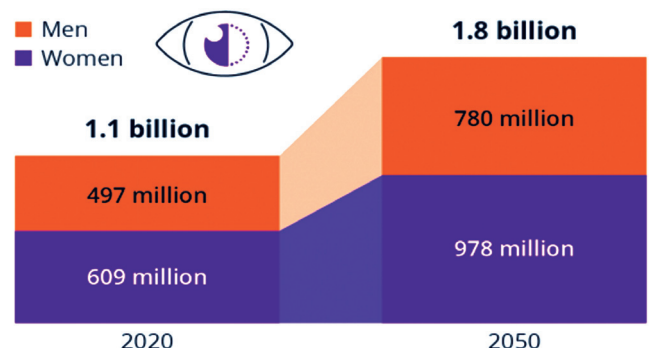
Among those aged 50 and above, 1.43% are blind, and 4.06% have significant visual impairment (**eHEALTH**).

Globally

- Refractive errors and cataracts are the leading causes of vision loss. The annual productivity loss due to vision impairment is estimated at US\$ 411 billion (**WHO**).

Vision Loss Predicted to Surge 55% by 2050

Expected number of people with vision loss globally in 2020 and 2050*



* Includes people suffering from blindness, moderate to severe, mild and near vision loss

Source: IAPB Vision Atlas

Key Causes of Rising Eye Diseases

Refractive Errors: Uncorrected myopia, hyperopia, and astigmatism remain the top contributors to vision impairment.

- Easily treatable with glasses or contact lenses, yet millions lack access.

(cont...2nd page)

Performance at a Glance

Total Eye Surgeries : 4,96,634 Since Inception
Total Outpatients Screened : 28,84,434 Since Inception

PROTECT YOUR EYES THIS WINTER: ESSENTIAL EYE CARE TIPS FOR SMOG SEASON

As winter approaches, so does the annual surge in smog a silent but serious threat to eye health. From irritation and dryness to long-term risks like glaucoma, the effects of pollution on our eyes are often underestimated. Add to that the hazards of festive fireworks, and it becomes clear: proactive eye care isn't optional it's essential.

Smog, Fireworks, and Festivities: A Risky Mix

The festive season brings joy and dazzling lights, but it also coincides with a familiar environmental pattern. Cooler temperatures, slower winds, and temperature inversion trap pollutants close to the ground, creating dense smog. Our eyes are often the first to react stinging, watering, and reddening long before our lungs show signs of distress. This winter, let's break the cycle. Pre-emptive eye care can help protect your

EYE CARE MANAGEMENT

innovation and affordability. While high-tech solutions offer extraordinary capabilities, their cost often renders them inaccessible to low-resource settings, perpetuating inequities in care. The workforce is also under strain. Demand for skilled ophthalmologists continues to rise, yet training infrastructure lags behind, creating bottlenecks in service delivery. Fragmentation of care further complicates the patient journey many individuals navigate between optometrists, surgeons, and general practitioners without cohesive guidance, resulting in gaps in treatment and follow-up.

Moreover, the growing reliance on A.I. and automation introduces complex ethical considerations. Issues surrounding data privacy, diagnostic accuracy, and clinician accountability in automated workflows require vigilant oversight and comprehensive regulatory frameworks.

Shaping the Future of Ophthalmology

To thrive in this evolving landscape, eye care providers must balance innovation with inclusivity. Embracing collaborative, multidisciplinary approaches, investing in workforce development, and ensuring equitable access to technology will be essential. By staying rooted in patient-first values, the field of ophthalmology can continue to advance while remaining responsive to the diverse needs of the global population.

vision and keep seasonal joy from turning into discomfort.

Start Early: Prevention Is Key

Don't wait for symptoms to appear. Begin your eye care routine before the smog sets in:

Schedule an eye check-up, especially if you have glaucoma, diabetes, a history of eye surgery, or persistent dry eye.

Monitor your intraocular pressure if you're at risk.

Use protective eyewear when outdoors or near fireworks.

Keep your eyes hydrated with lubricating drops recommended by your doctor.

Eyes Don't Forgive But You Can Prevent

Unlike other organs, eyes rarely recover from damage. Vision loss from preventable causes can be permanent. But the good news? Most seasonal risks are avoidable with simple, proactive steps.

This winter, make eye care a priority not just for the festive season, but for every season to come.

(Insights by **K Bangar Raju**, Editor)

A GLOBAL VISION CRISIS: RISING EYE DISEASE PREVALENCE IN INDIA & BEYOND

Cataracts: Age-related clouding of the eye lens. Most prevalent in low- and middle-income countries due to limited surgical access.

Low- and middle-income countries (LMICs) are classified based on their gross national income (GNI) per capita, as defined by the World Bank. These classifications are updated annually and help guide global development efforts, funding, and health initiatives.

Low Income countries include, Afghanistan, Burundi, Chad, Democratic Republic of Congo, Madagascar, Mozambique and South Sudan.

Lower-Middle-Income Countries like India, Bangladesh, Nigeria, Pakistan, Vietnam, Philippines and Kenya.

Digital Eye Strain: Excessive screen time among youth is causing dry eye syndrome, myopia progression, and early squinting. Reduced blink rates while watching short-form content like reels worsen symptoms.

Diabetic Retinopathy: A complication of diabetes damaging retinal blood vessels. Rising diabetes rates in India are fuelling this condition.

Glaucoma & Age-Related Macular Degeneration (AMD): Often asymptomatic until advanced stages. Require regular screening for early detection.

Lifestyle and Environmental Factors: Sedentary habits, poor nutrition, and lack of outdoor activity contribute to worsening eye health, according to India Today survey.

Remedies and Strategies for Prevention

Improve Access to Eye Care: Expand rural outreach programs and mobile eye clinics.

- Train and deploy more ophthalmologists and optometrists in underserved areas.

Raise Awareness: Promote regular eye check-ups, especially for children and the elderly.

- Educate on screen hygiene and the 20-20-20 rule: every 20 minutes, look at something 20 feet away for 20 seconds.

Make Eye Care Affordable: Subsidize cataract surgeries and corrective lenses. Encourage public-private partnerships to reduce costs.

Encourage Healthy Lifestyles: Advocate for balanced diets rich in antioxidants and omega-3s.

Promote outdoor activities to reduce myopia progression in children.

Invest in Research and Innovation: Eye care professionals support development of AI-based screening tools. Encourage innovation in low-cost surgical techniques and diagnostics.

Looking Ahead

The fight against eye diseases requires a multi-pronged approach combining medical innovation, public health policy, and community engagement. With timely intervention, over 75% of vision impairment cases in India are preventable or treatable.

It's time to bring eye health into sharper focus for India and the world.

(Insights by **K Bangar Raju**, Editor)

"The eyes are the silent language of the universe."

Cracker Injury in Ophthalmology : Prevention and Treatment – A Doctor's Perspective

Introduction

Fireworks, synonymous with celebration and festivity, add vibrancy to our lives. Yet, their improper use poses a serious threat to ocular health. Firecracker-related eye injuries are a preventable cause of visual morbidity, especially during festivals like Diwali in India and New Year celebrations worldwide. As ophthalmologists, we often witness severe vision loss that could have been avoided with simple precautions.

Epidemiology

Firecracker injuries represent a significant share of ocular trauma during festive seasons. Studies indicate that 20-25% of firework-related injuries affect the eyes. Alarming, nearly half of these victims are bystanders frequently children and adolescents. Males are disproportionately affected due to higher exposure and risk-taking behavior.

Mechanism of Injury

Ocular damage from firecrackers may result from:

1. **Mechanical trauma** – blast impact or flying debris
2. **Thermal injury** – burns from sparks or flames
3. **Chemical injury** – exposure to gunpowder and explosive compounds
4. **Combined injuries** – involving multiple mechanisms

Injury severity ranges from mild conjunctival burns to globe rupture and irreversible vision loss.

Clinical Presentation

Typical ocular findings include:

- * Conjunctival and corneal burns
- * Corneal epithelial defects and foreign bodies
- * Hyphema
- * Lid lacerations or burns
- * Traumatic cataract
- * Vitreous hemorrhage
- * Retinal detachment
- * Open globe injuries and vision loss

Children may present late or minimize symptoms, underscoring the importance of thorough examination.

Immediate Management

- * Irrigate the eye with saline
- * Remove debris; double evert the lid to check for retained foreign bodies
- * Assess globe integrity
- * Document epithelial defects and apply a bandage contact lens (BCL)
- * Initiate hourly steroid drops, cycloplegics, antibiotics, and lubricants
- * Reassess in 3–4 days; if re-epithelialization is delayed, consider amniotic membrane grafting or tarsorrhaphy
- * Add systemic steroids if hypotony or anterior segment ischemia (e.g., hypopyon, iris atrophy, cataract changes) is present

Timely and appropriate intervention can often preserve vision.

Complications

- * Corneal scarring
- * Sympathetic ophthalmia
- * Secondary glaucoma
- * Endophthalmitis
- * Permanent blindness

Prevention Strategies

Before Lighting Firecrackers

1. **Wear protective eyewear** – Use polycarbonate safety goggles to guard against sparks and debris.
2. **Maintain safe distance** – Stand at least 5–10 meters from the ignition point.
3. **Supervise children** – Firecrackers should be handled only by adults; children must be closely monitored.
4. **Choose open areas** – Avoid lighting fireworks near buildings, dry vegetation, or flammable materials.
5. **Keep extinguishing materials nearby** – Have water or sand ready for emergencies.
6. **Raise awareness** – Educate family and friends about firework hazards and eye safety.

If an Eye Injury Occurs

1. Stay calm and act swiftly.
2. **Protect the eye** – Cover gently with a clean shield or sterile gauze; avoid applying pressure.
3. **Rinse cautiously** – Only in mild chemical exposure, and if no open wound or globe rupture is suspected.



Dr.V K Yasaswini Dr Shreya Mishra
Cornea Department

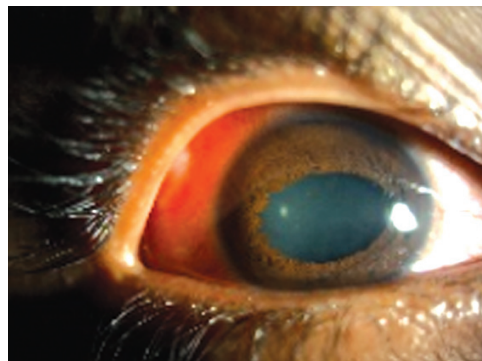


4. **Seek immediate medical care** – Contact an ophthalmologist or visit the emergency department without delay.

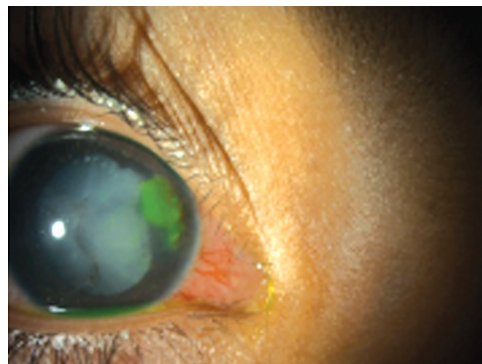
Conclusion

Cracker-related ocular injuries are a tragic yet entirely preventable cause of vision loss. A fleeting moment of negligence can lead to lifelong blindness. Through public education, stringent regulation, and prompt medical care, we can substantially reduce this burden.

As ophthalmologists, our responsibility extends beyond clinical practice we must actively engage in community outreach and awareness to champion safer celebrations and safeguard the invaluable gift of sight.



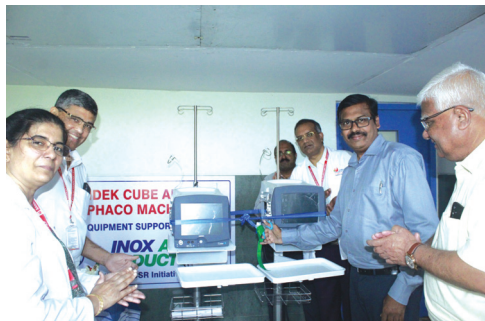
A 30 year old Traumatic sphincter tear after cracker injury



A 6 year old- Epithelial Defect, sphincter tear, Anterior capsular tear with traumatic cataract after cracker injury

“Love is written in the language of eyes”

State of the art Phaco Machines inaugurated



INOX Group, as part of its Corporate Social Responsibility (CSR) initiative, has generously donated a state-of-the-art two Nidek Phacoemulsification machines to Sankar Foundation Eye Hospital & Institute, Visakhapatnam. The Regional Sales Manager of INOX, Sri SVS Raju inaugurated the Phaco machines on 16th October, 2025 in the presence of Sri K Radhakrishnan, GM and other dignitaries.

Sankar Foundation Managing Trustee Sri A Krishna Kumar, General Manager Sri K Radhakrishnan express their gratitude to INOX management for their continuous support to the foundation.

Dr T Raveendra, Dr Nasrin, Sri V Ramesh Kumar, DGM (PC & CR), Sri KV Venugopal, DGM (Operations) and others were present on the occasion.

INOX's support highlights the crucial impact of corporate partnerships in advancing public health and empowering ophthalmic surgeons to perform cataract procedures with enhanced precision.

Sankar Foundation Inks MoU with SALPG to Strengthen Eye Care Services

Sankar Foundation has signed a Memorandum of Understanding (MoU) on 13th October 2025 with South Asia LPG Ltd (SALPG) to conduct comprehensive eye screening camps in the Gnanapuram and Kobbaritota areas of Visakhapatnam. As part of the MoU, SALPG will donate a state-of-the-art microscope to enhance the diagnostic infrastructure at Sankar Foundation Eye Hospital in addition to the free eye screening camps.

The MoU documents were formally exchanged between Mrs. Richa Shinde, CEO and Managing Director of SALPG, and Sri K. Radhakrishnan, General Manager (Admin & Operations), Sankar Foundation. Sri V. Ramesh Kumar, Deputy General Manager (PC & CR), Sankar Foundation was also present at the occasion.



Mrs. Richa Shinde, CEO and Managing Director of SALPG, and Sri K. Radhakrishnan, General Manager exchanging the MOU copies.

SALPG has been a consistent supporter of Sankar Foundation's mission to eliminate avoidable blindness and strengthen its infrastructure for quality eye care delivery.

Sankar Foundation Students Shine with 100% First Class Results

Diploma students (2023–25 batch) of Sankar Foundation Eye Hospital and Institute have excelled in the Allied and Health Care Professions Council examinations, recognized by the Government of Andhra Pradesh, by securing 100% First Class results. All Students have successfully secured placements across Sankar Foundation, as well as in leading eye hospitals and optical centers in Andhra Pradesh, Telangana, and Odisha. Sri A. Krishna Kumar, Managing Trustee; Sri K. Radhakrishnan, General Manager; Prof. Krishna Prasad, Principal; and faculty members extended their heartfelt congratulations to the students for their outstanding academic achievement and bright professional beginnings.



GST AWARENESS MEETING – A STEP TOWARDS INCLUSIVE REFORM

The District Medical & Health Officer (DMHO), Visakhapatnam, in collaboration with the Assistant Commissioner (GST), conducted an awareness meeting on 9th September 2025 to highlight the Centre's recent GST 2.0 reforms, which simplify the slab rate system from five tiers to two.

While addressing the gathering, Miss K. Pratyusha, Senior Manager, Finance & Accounts, Sankar Foundation, outlined the benefits of these reforms, particularly for the healthcare sector. She noted that reduced GST rates on medicines have



Miss Pratyusha speaking at the meeting.

made treatments more affordable for patients. Revised classifications are expected to boost the sale of spectacles, while rationalized rates on equipment

and essential services will help institutions manage operational costs more effectively. The meeting underscored how these reforms foster affordability, transparency, and inclusive growth. Miss Pratyusha emphasized that they also enhance service delivery and operational efficiency. Officials from the Health Department and GST were present at the event.

"The eye is the jewel of the body"

EYE ALLERGY SYMPTOMS : WHAT TO WATCH FOR

Eye allergies, also known as allergic conjunctivitis, are a common yet often overlooked condition that can significantly affect daily comfort and vision. With allergens like pollen, dust, and pet dander on the rise, it's important to recognize the signs early.



Key Symptoms

- * **Itchy Eyes:** A persistent urge to rub your eyes is often the first sign.
- * **Redness :** Inflamed blood vessels make the eyes appear bloodshot.
- * **Watery Discharge:** Clear, teary eyes are a typical allergic response.
- * **Burning Sensation:** A stinging or gritty feeling may accompany exposure to allergens.
- * **Swollen Eyelids:** Puffiness, especially in the morning or after being outdoors.
- * **Light Sensitivity:** Bright lights may cause discomfort or squinting.

Common Triggers

- * **Outdoor allergens:** Pollen from trees, grasses, and weeds.
- * **Indoor allergens:** Dust mites, mold spores, pet dander.



**"Strength is born from eyes
that inspire resilience"**

Dr Rashmi Rath

Consultant, Cornea
INOX Campus -
Sankar foundation
Maddilapalem



* **Environmental irritants:** Smoke, perfumes, and pollution.

To relieve eye allergies, use cold compresses, antihistamine eye drops, artificial tears, and avoid known allergens. Home remedies like cucumber slices, green tea bags, and saline rinses can also help soothe symptoms.

Ocular allergy is a very common condition of the eyes that can affect any age group. It can occur in a particular season especially in summer or spring (seasonal) where the cause is usually due to any particular pollen, grass or weeds. To some people it can occur throughout the year (perennial) like dust allergy or allergy to any pet. Usually these patients have associated skin and nasal allergy also.

Important Precautions: Avoid applying substances like rose water, aloe vera gel, honey, or other home remedies directly to the eyes. These can potentially trigger allergic reactions or cause chemical injury to the delicate eye tissues.

Stay indoors as much as possible especially during the midmorning and early evening, and when wind is blowing pollens around. Keep windows closed, and use air conditioning. Air conditioning units should be kept clean. Clean floors with a damp rag or mop, rather than dry-dusting or sweeping.

When to Seek Help: If symptoms persist, worsen, or interfere with daily activities, it's important to consult an eye care professional or allergist. Treatment options may include antihistamine eye drops, lubricating artificial tears, or oral allergy medications tailored to your specific needs.

SHORT TAKES

Lions Eye Institute brings cutting-edge cancer treatment to WA

West Australian (WA) children diagnosed with a rare form of eye cancer can now receive potentially lifesaving treatment thanks to a specialist team from the Lions Eye Institute and Perth Children's Hospital. Until recently, WA children diagnosed with retinoblastoma had to travel to Melbourne or Sydney every few weeks for several months to access cutting edge intra-arterial chemotherapy.



The baby was recovered from eye cancer

The treatment involves delivering low doses of chemotherapy to the eye via the ophthalmic artery. It is now available in WA thanks to a team of specialists led by paediatric ophthalmologist Benjamin Host from the Lions Eye Institute, which is a Telethon beneficiary. This was the case for five-month-old baby, who is now cancer free after Dr Host diagnosed retinoblastoma when she was just four weeks' old.

JOHNSON & JOHNSON INNOVATION

Johnson & Johnson has announced new data on its Acuvue Oasys Max 1-Day for Astigmatism contact lenses that demonstrated higher end-of-day comfort when compared to Dailies Total1 for Astigmatism.

At Johnson & Johnson, our relentless pursuit of innovation drives us to develop solutions that truly transform lives and makes vision possible for more than 40 million people around the world. The ACUVUE OASYS MAX 1-Day family of contact lenses exemplifies our commitment to empowering more patients to see the world with clarity and confidence every day, said Peter Menziuso, company group chairman, Vision at Johnson & Johnson, in the release.

(Insights by **K Bangar Raju**, Editor)

LIGHTING UP LIVES : SANKAR FOUNDATION BRINGS SIGHT TO SRIKAKULAM'S VILLAGES

Restoring Sight. Renewing Hope. Reaching Every Corner :

In the heart of Srikakulam District, Sankar Foundation Eye Hospital stands as a beacon of healing where cutting-edge technology meets heartfelt compassion. As the district's primary referral center for eye care, the hospital blends medical excellence with a deep commitment to serving those who need it most, especially in rural and tribal communities.

Comprehensive Eye Care Under One Roof : Every patient who walks through our doors is met with dignity, care, and world-class treatment. Our specialized units for glaucoma, retina, cataract, cornea, and other eye conditions ensure accurate diagnosis and effective management all supported by modern diagnostic tools and a team of skilled professionals.

Surgical Excellence with a Human Touch : Our operation theatres run at full capacity, performing 25–35 surgeries daily over 500 each month. From advanced cataract procedures like phacoemulsification with lens implantation to retina treatments and anti-VEGF injections, every surgery is delivered with precision and compassion.



Sankar Foundation near Simhadwaram, Srikakulam

Advanced Retina & Imaging Services

With over 100 OCT scans monthly and B-scan ultrasonography, our Retina Department offers high-quality imaging and expert care. A retina specialist from our Visakhapatnam centre visits every Friday, ensuring timely diagnosis and treatment. Patients needing further care are seamlessly referred for advanced management.

Reaching the Unreached: Community Outreach :

True to our mission of inclusive eye care, we conduct regular outreach camps across remote villages and tribal hamlets. These camps identify eye problems early, arrange treatment, and

ensure that no one is left behind regardless of geography or background.

Growth That Reflects Trust : Our journey is marked by growing trust and impact:

- ★ Aarogyasree surgeries rose by 9.4% in 2022–23 and 43.8% in 2023–24
- ★ Paid/EHS/TPA surgeries surged by 107% in 2023–24
- ★ Outpatient visits under Aarogyasree increased by 41.4%, and Paid OP by 35.69%
- ★ Glass prescription sales climbed steadily: 63% (2022), 72% (2023), 76% (2024)

These numbers reflect not just growth but the growing confidence of our patients and the dedication of our team.

A Mission Rooted in Compassion :

At Sankar Foundation Eye Hospital, Srikakulam, every eye we heal is a life we touch. Every restored vision is a renewed dream. We believe that quality eye care is a right not a privilege and we're here to ensure that even the most remote communities can see a brighter tomorrow.

Sankar Foundation has earned public trust across Srikakulam district through its high-quality, patient-centered eye care services.

OPD Consultation		
Year	Category	
	Aarogyasri	EHS/ECHS/Paid
2022	8350	5183
2023	11810	3832
2024	14698	5200

Surgeries		
Year	Category	
	Aarogyasri	EHS/ECHS/Paid
2022	3098	288
2023	3390	290
2024	4876	601

Opticals			
Year	GP Selection	GP Conversion	Conversion Rate
2022	1880	1198	63%
2023	2548	1843	72%
2024	3248	2465	76%

(By the devoted team of Sankar Foundation Eye Hospital, Srikakulam — where service meets empathy)

"VISION VS. MYTHS : SEE THE TRUTH" 5 EYE HEALTH MYTHS THAT COULD BE HARMING YOUR VISION

Eye health is often clouded by myths that delay care and cause unnecessary concern. By separating fact from fiction, we can make smarter choices and safeguard our vision. Here are five common misconceptions debunked.

1. Myth: Kajal or kohl protects eyes from infections : Traditional beliefs suggest kajal or kohl has protective properties, but these products can introduce harmful particles or bacteria, increasing the risk of infection.

2. Myth: Wearing glasses weakens your eyesight : Glasses correct refractive errors they don't change the eye's structure or worsen vision. Any

changes in eyesight are typically due to age or underlying conditions, not the use of corrective lenses.

3. Myth: Only older adults get eye diseases : While age-related conditions are common, diseases like glaucoma, diabetic retinopathy, and cataracts can affect people of all ages—including children. Routine eye exams are vital for everyone.

4. Myth: Eye exercises or natural remedies can cure vision problems Despite popular claims, there's no scientific proof that exercises or herbal treatments can reverse conditions like myopia or astigmatism. A healthy

lifestyle supports eye health but doesn't replace medical care.

5. Myth: Cataracts must be "ripe" before surgery : Modern cataract surgery allows for earlier intervention—once vision begins to interfere with daily life. Waiting unnecessarily can impact quality of life and increase complications. **Bottom line:** Eye health relies on timely check-ups, early diagnosis, and professional care. Dispelling these myths helps us protect our vision for the long term.

(Edited by **K Bangar Raju**,
Dy General Manager (PR & Liaison).
Source: The Times of India)

OPHTHALMOLOGY UNLEASHED : THE SCIENCE BEHIND 2025'S VISION REVOLUTION

In 2025, ophthalmology is no longer confined to the clinic it's a dynamic frontier of science, technology, and human impact. From AI-powered diagnostics to immersive AR/VR rehabilitation, the field is experiencing a seismic shift. This revolution isn't just about sharper vision it's about restoring autonomy, enhancing quality of life, and reimagining what's possible for millions affected by visual impairment. Ophthalmology Unleashed dives into the breakthroughs driving this transformation and the science that's turning once-distant dreams into everyday realities.

Tackling Diagnostic Gaps

Artificial Intelligence (AI)

AI-powered tools now analyze retinal scans to detect early signs of diabetic retinopathy, AMD, and glaucoma with remarkable precision.

These systems are being integrated into primary care and telemedicine, expanding access.

Treating Previously Untreatable Conditions

Gene & Cell Therapies

Luxturna paved the way for gene therapy in inherited retinal dystrophies. New therapies like Restoret are targeting AMD

and DME. Stem cell therapy is being explored to regenerate damaged retinal cells and optic nerves, offering hope for glaucoma and dry AMD. Surgical Precision & Recovery

Minimally Invasive Techniques

Femtosecond laser-assisted cataract surgery and SMILE for refractive correction offer faster recovery and better outcomes.

Minimally Invasive Glaucoma Surgery (MIGS) uses microscopic devices to reduce intraocular pressure with less trauma.

Robotic-Assisted Surgery

Systems like Preceyes enable ultra-precise retinal procedures, reducing human error and improving safety.

Bridging Access & Efficiency

Tele-ophthalmology

Remote diagnostic hubs allow patients to undergo imaging and testing without needing a specialist on-site. This model is especially valuable in rural and low-resource settings.

Smart Monitoring & Rehabilitation Wearable Tech

Smart contact lenses can monitor intraocular pressure in real time crucial for glaucoma management. AR / VR



tools are being used for visual rehabilitation and surgical training. Augmented Reality (AR) and Virtual Reality (VR) are no longer just buzzwords they are becoming indispensable tools in ophthalmology, revolutionizing both visual rehabilitation and surgical training.

These innovations aren't just futuristic they're actively reshaping care delivery, enhancing clinical outcomes, and making ophthalmology more precise, inclusive, and accessible than ever.

Beyond the Horizon; As we move forward, the goal remains clear: to make vision care more accessible, effective, and human-centered powered by technology, but grounded in empathy.

Insights by **K Bangar Raju**, Editor with inputs from: <https://www.ehealth.eletsonline.com>

WELLNESS VIEW

HOW POOR SLEEP IMPACTS EYE HEALTH : 5 EXPERT TIPS TO PROTECT YOUR VISION

Sleep isn't just nourishment for the body and mind it's essential for your eyes too. While most of us associate sleep with mental and physical rejuvenation, one of its most overlooked benefits is its role in maintaining eye health.

People often think of sleep as food for the brain and body, but it's equally vital for your eyes. In fact, sleep acts as nourishment for the cornea the transparent surface that helps focus your vision, according to Dr. Mustafa Parekh, ophthalmologist at Saifee Hospital, Mumbai.

How Sleep Heals the Cornea During sleep, the cornea is bathed in a tear film rich in oxygen and essential nutrients. This tear film helps repair micro-damage sustained throughout the day. While seven to eight hours of sleep is ideal for

overall health, Dr. Parekh emphasizes that the eyes specifically require at least four consecutive hours of uninterrupted sleep to initiate this healing process.

What Sleep Deprivation Does to Your Eyes

When sleep is cut short or frequently interrupted, the cornea misses out on its nightly nourishment. This can lead to recurrent corneal erosions, painful gaps on the corneal surface. People suffering from sleep deprivation often wake up with sore, gritty, or red eyes. In severe cases, repeated erosions may progress to corneal ulcers or keratopathy, posing a serious threat to long-term vision.

5 Tips to Protect Your Eyes from Sleep-Related Damage

1. Don't underestimate one bad night Even a single night of poor sleep can leave your eyes dry, sensitive, and painful.

2. Use lubricating eye drops These can offer temporary relief from dryness and help prevent corneal infections.
3. Establish a sleep-friendly routine Stick to regular sleep hours, reduce screen time before bed, and create a calming sleep environment.
4. Watch for warning signs If you frequently wake up with eye pain, light sensitivity, or blurred vision, consult an eye specialist.
5. Take corneal erosions seriously Left untreated, they can severely affect your vision and overall quality of life.

"Vision is the art of seeing what is invisible to others"

Written by
Smt. Usha Atmakuri,
Dy GM &
I/C Maddilapalem &
Madhurawada Branches



INNOVATION & IMPACT

Clinical Snapshot Metrics- October 2025

✦ Total Eye Surgeries	2,583
✦ Cataract Surgeries	1,842
✦ Retina Surgeries	77
✦ Retina Injections	192
✦ Glaucoma Surgeries	19
✦ Cornea Surgeries	249
✦ Pediatric Surgeries	09
✦ Orbit & Oculoplasty	54
✦ Total OP Screened	15,606

BRANCHES

✦ Srikakulam Eye Surgeries	352
✦ OP Screened	2,063
✦ Maddilapalem Surgeries	100
✦ OP Screened	1,180
✦ Gajuwaka Surgeries	27
✦ OP Screened	1,017
✦ Madhurawada Surgeries	19
✦ OP Screened	557
✦ Total 43 Outreach free eye camps conducted and screened 2778 patients and Performed 1033 surgeries	

EDITOR
K BANGAR RAJU
Dy GM (PR & Liaison)

EDITORIAL BOARD

Dr T Raveendra, Director, CQIR & Head, Glaucoma

Dr Nasrin, Director, Medical Administration and Training & HOD Cornea

Prof P Krishna Prasad, Head, Medical Education

Feedback : dgmpr@sfeye.org

kammellabangarraju@gmail.com
Mobile : 98481 89378

BREAKTHROUGH EYE IMPLANT RESTORES READING VISION IN BLIND PATIENTS

A pioneering clinical trial led by researchers from **University College London (UCL)** and Moorfields Eye Hospital has demonstrated that an electronic eye implant, paired with augmented-reality glasses, can restore reading vision in people who had lost sight due to geographic atrophy (GA) a form of dry age-related macular degeneration (AMD).

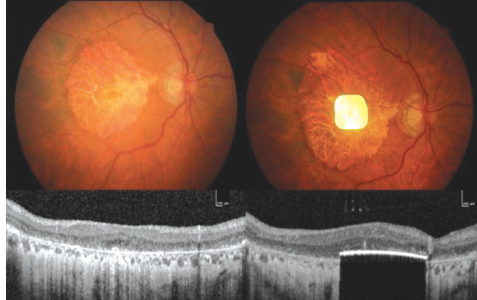


Image of the chip in a patient's eye

Published in **The New England Journal of Medicine**, the European trial revealed that 84% of participants were able to read letters, numbers, and words using prosthetic vision in an eye previously rendered blind by the progressive, untreatable condition. On average, treated patients could read five lines on a vision chart some of whom had been unable to see the chart at all before surgery.

The study involved 38 patients across 17 hospital sites in five countries, with Moorfields Eye Hospital serving as the sole UK site. All participants had lost complete central vision in the treated eye, retaining only limited peripheral sight.

Dry AMD causes gradual deterioration of the macula's light-sensitive cells. In its advanced form known as geographic atrophy (GA) the central retina deteriorates entirely, leading to

irreversible vision loss. Affecting over 5 million people globally, GA currently has no approved treatment.

The device tested, called the **PRIMA System**, is the first of its kind to restore the ability to read through a blind eye. It consists of a wireless sub retinal photovoltaic implant, developed by Science Corporation (science.xyz), and specialised augmented-reality glasses. The glasses project near-infrared light onto the implant, which acts like a miniature solar panel to stimulate retinal cells.

The implant itself is ultra-thin just 30 microns thick and 2mm x 2mm in size, roughly half the thickness of a human hair and shaped like a SIM card. It is surgically inserted beneath the retina via a vitrectomy, where the eye's vitreous gel is removed and a small trapdoor is created to position the chip. The glasses, equipped with a video camera and zoom-enabled computer worn at the waist, complete the system.

"This marks a new era in artificial vision," said Mr Mahi Muqit, associate professor at the UCL Institute of Ophthalmology and senior vitreoretinal consultant at Moorfields, who led the UK arm of the trial. "Patients who were completely blind are now regaining meaningful central vision. The ability to read again significantly enhances their quality of life, mood, confidence, and independence."

He added that the PRIMA chip procedure can be safely performed by any trained vitreoretinal surgeon in under two hours making it a scalable solution for patients worldwide suffering from GA due to dry AMD.

(Insights by **K Bangar Raju**, Editor with inputs from New England Journal of Medicine)

Optometry Excellence: Sankar Foundation Student Wins Best Oral Award

J. Manmadha Rao, a final-year B.Sc Optometry student at Sankar Foundation Eye Institute, achieved a remarkable milestone by winning the Best Oral Award at the two day International Conference organized by Dr. Agarwal's Institute of Optometry in Chennai on 24th October. His award-winning presentation, titled "Advances in Optical Coherence Tomography and Imaging Systems", was recognized for its depth and innovation.

Sri A. Krishna Kumar, Managing Trustee; Sri K. Radhakrishnan, General Manager; Prof. Krishna Prasad, Principal; along with faculty members, extended their



heartfelt congratulations to Manmadha Rao for his outstanding academic achievement.

"In the realm of dreams, his eyes are guiding stars."