

ADVISORY TO PREVENT ,MINIMISE AND MITIGATE OCULAR TRAUMA

OVERVIEW

Eyes are an important part of our health. We rely on our eyes to see and appreciate the world around us. Eighty percent of what we perceive comes through our sense of sight. Eye injury constitutes 7% of all bodily injuries and 10% of all eye diseases. Ocular trauma is responsible for about 5% of permanent and irreversible injuries. Eye injury commonly affects the young male population during their most productive age (35% of victims are below 25 years of age) and hence can have a significant socio-economic impact on the family of victim and the family. Eye injury is recognised as one of the major causes of disabilities in India. However the most important reassuring fact is that the eye is preventable cause of blindness. Major contributors of eye injury are road accidents (34%), sports (29%) and occupations (21%).

However the most important and reassuring fact is that eye injury is a preventable cause of blindness, ocular trauma in india is a multifaceted issue with significant implications for individual health and societal well-being. Addressing it effectively requires a combination of preventive measures, improved healthcare access, public education, and robust emergency care systems.

Here are some cases of common mechanism of action of trauma to eye

- Mechanism Of Ocular Trauma: Welding Work
- **Foreign Bodies** Present On Cornea, Conjunctiva
- Objects Causing Trauma: Iron Particles
- Treatment Given: Thorough Examination Under Slit Lamp To Observe The Foreign Body Located In Cornea, Conjunctiva (Upper, Lower), Removed Under Topical Anesthesia , Prescribed Antibiotic Eyedrops, Cycloplegics, Eye Patching For 24 Hours



- Mechanism Of Ocular Trauma: **Perforating Injury**
- Circumstances: Accidental Trauma With Sharp Objects
- Objects Causing Trauma: Stick, Wires, Sharp Steel Instruments, Toys
- Treatment Given: Patient Taken To Eye Ot After Investigations, Corneal Tear Repair With Ac Reformation Done With Iv And Local Antibiotics , Steroids (Local And Systemic) , Cycloplegics.



- Mechanism Of Ocular Trauma: **Chemical Injury**
- Circumstances: Accidental Spillage Of Chemical During Work
- Objects Causing Trauma: Lime
- Treatment Given: Thorough Eyewash Given Till Neutralization Of Ph, Prophylactic Topical Antibiotic, Iv And Local Steroids Given



- Mechanism Of Ocular Trauma: **Rta With Head Injury**
- Circumstances: Traumatic Optic Neuropathy
- Objects Causing Trauma: Severe Head Injury With Loss Of Consciousness
- Treatment Given: Admitted And Given Iv Mps For 3 Days Followed By Oral Steroids



Prevention of ocular trauma

EYE INJURY PREVENTION

GENDER
Men are more likely to suffer from an eye injury.

LOCATION
Although it's commonly believed that most injuries happen on the job, shockingly nearly 1/2 of all injuries happen in the home.

ACTIVITIES
It's estimated that 40% of eye injuries are caused by projects and activities such as home repairs, yard work, cleaning and cooking.

ATHLETICS
More than 40 percent of eye injuries every year are related to sports or recreational activities.

SUNSHINE
Eyes can be damaged by sun exposure, not just chemicals, dust or objects.

World Eye Injury Prevention



- 1 Wear eyewear properly tinted for the particular job you are working at.
- 2 Wear eye protection when working with power tools or chemicals.
- 3 Get medical attention immediately if you have an accident.
- 4 Keep your eye protection clean.

Eye Safety Checklist

- ✓ **Create and maintain a safe work environment**
Keep tools in the right place and with their safety features on. All persons in the hazard area should know how to properly use the tools.
- ✓ **Evaluate safety hazards**
Identify the hazards at the work site such as machinery or falling debris.
- ✓ **Wear proper eye and face protection**
Choose the appropriate Z87 eye protection and make sure it fits well and is in good condition.
- ✓ **Practice good work habits**
Clean yourself of all debris before removing protection. Keep eyes safe and clean glasses often and do not rub them with dirty hands.
- ✓ **Prepare for eye injuries**
Keep a first aid kit with eye wash or sterile solution nearby.

THE 5 STEPS TO Eye Safety

- Step 1** Ensure your eye protection fits well.
- Step 2** Use appropriate guards, screens and other safety devices.
- Step 3** Choose the proper eye protection for the job.
- Step 4** Replace worn or damaged equipment.
- Step 5** Avoid prolonged periods of looking at computer or other screens.

Prevention and treatment

1.Awareness and Education

- 1. Public Awareness Campaigns:** Initiatives to educate people about the risks of ocular trauma and the importance of eye protection.
- 2. Workplace Safety:** Education for workers in industries like construction, manufacturing, and mining about using protective eyewear.

2.Regulations and Safety Standards

- 1. Mandatory Use of Protective Gear:** Enforcing laws and guidelines requiring protective eyewear in hazardous work environments.
- 2. Standards for Product Safety:** Ensuring that consumer products, especially those that could potentially cause eye injury, meet safety standards.

3.Community Outreach

- 1. School Programs:** Implementing eye safety programs in schools to teach children about the importance of eye protection during activities and sports.

- 1. Rural Health Initiatives:** Educating people in rural areas about eye safety and providing access to protective gear.

Treatment

1. Emergency Care

- 1. First Aid:** Training individuals in basic first aid for eye injuries, such as flushing the eye with clean water and covering it with a sterile bandage.
- 2. Access to Care:** Ensuring that emergency services and clinics equipped to handle ocular trauma are accessible, especially in rural and underserved areas.

2. Specialized Medical Care

- 1. Ophthalmology Services:** Expanding the availability of specialized ophthalmologists and eye care centers, particularly in underserved regions.
- 2. Advanced Treatment:** Providing access to advanced surgical procedures and treatments for severe cases of ocular trauma. **Follow-Up and**

1.Rehabilitation

1. **Post-Treatment Care:** Ensuring proper follow-up care for patients who have undergone treatment for eye injuries.
2. **Rehabilitation Services:** Offering rehabilitation services including vision therapy and psychological support for individuals with long-term effects from eye injuries.

ACTIONS Taken to mitigate and minimize ocular trauma.

1. Use of Protective Eyewear

- The consistent use of safety goggles or glasses has been promoted in environments where eye hazards are present, such as laboratories, workshops, and during certain sports.

2. Safety Protocols in Workplaces and Schools

- Strict safety regulations and procedures have been established and enforced in educational and occupational settings to reduce the likelihood of accidents.

3. Educational Campaigns

- Awareness campaigns have been launched to educate individuals about the risks associated with ocular trauma and the importance of using protective measures.

4. First Aid Training

- Training has been provided on how to handle eye injuries, including basic first aid techniques and guidance on when to seek professional help.

5. Emergency Response Plans

- Clear protocols for responding to eye injuries have been developed, ensuring that staff and students know how to act in case of an emergency.

6. Access to Eye Care Services

- Easy access to eye care facilities and professionals has been ensured for timely evaluation and treatment of eye injuries.

7. Regular Safety Audits

- Regular assessments of environments (e.g., labs, workshops) have been conducted to identify and mitigate potential eye hazards.

8. Safe Handling of Hazardous Materials

- Guidelines for the safe use and storage of chemicals and other hazardous materials that pose risks to eye safety have been implemented.

9. Promotion of Sports Safety

- The use of protective eyewear in sports has been advocated, particularly in contact sports and activities with a high risk of eye injury.

10. Community Engagement

- Collaboration with local health organizations has been established to provide resources and programs focused on eye safety and injury prevention.

11. Vision Health Awareness Programs

- Eye health education has been integrated into school curriculums and community programs to foster awareness from an early age.

12. Feedback and Reporting Systems

- Mechanisms for reporting unsafe conditions or practices have been established, encouraging a proactive approach to safety.

13. Research and Development

- Research initiatives aimed at developing better protective gear and understanding the causes and consequences of ocular trauma have been supported.

14. Regular Eye Examinations

- Individuals have been encouraged to schedule regular eye exams to monitor eye health and detect potential issues early.