

EYE & WORK



By: Gh. Pouryaghoub. MD

Center for Research on Occupational Diseases (CROD)

Tehran University of Medical Sciences (TUMS)

EYE & WORK

- ① VISUAL CAPABILITY
- ② OCULAR INJURY
- ③ EYE PROTECTION

VISUAL CAPABILITY

- **Visual acuity**
- **Contrast sensitivity**
- **Visual fields**
- **Color vision**
- **Oculomotor function**
- **Depth perception**

OCCUPATIONAL EYE INJURIES

● DIRECT EYE INJURIES

Mechanical

Non-mechanical

● INDIRECT EYE INJURIES

EPIDEMIOLOGY OF WORK RELATED EYE INJURY

- ◎ **Work related accidents (5%-19%)**
- ◎ **Ocular injuries (8%- 60%)**
- ◎ **Traumatic blindness (24%)**
- ◎ **Preventable (90%)**
- ◎ **Chemical induced (10%)**

Mechanical Eye Injury

- Foreign body
- Penetrating
- Concussional

Non-mechanical Eye Injury

- Chemical
- Radiation
- Thermal
- Electrical
- Eye-strain

EMERGENCY TREATMENT OF CHEMICAL EYE BURNS

◉ IN THE WORKPLACE

1. Wash the eye with copious

◉ IN THE EMERGENCY FACILITY

1. Irrigate with saline
2. Topical anesthetic
3. Remove foreign body
4. Test the *PH*
5. Remove damaged epithelium
6. Dilate the pupil
7. Give topical antibiotic
8. Patch the eye & Refer



Radiation Related Eye Injury

- Ionizing radiation
- Non-ionizing radiation
 - A) UV
 - B) VL
 - C) IR
 - D) MW
 - E) LASER

Non-mechanical Eye Injury

- Chemical
- Radiation
- Thermal
- Electrical
- Eye-strain

EYE PROTECTOR



IDEAL EYE PROTECTOR

- Provide the necessary protection
- Comfortable during wear
- Light-weight
- Easily cleaned
- Low cost
- Does not impair visual function
- Durable, Non-flammable, Non-irritant
- Suitable optical quality
- Cosmetically acceptable
- Compatible with other protectors



