

Ocular Emergencies

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Ocular Emergencies

- Corneal abrasion
- Corneal ulcer
- Chemical injury
- Uveitis
- Acute angle closure glaucoma
- Orbital cellulitis
- Endophthalmitis
- Retinal detachment
- Orbital/Ocular trauma
 - Corneal and conjunctival foreign bodies
 - Hyphema
 - Ruptured globe
 - Orbital wall fracture
 - Lid Laceration

Top 10 Eye Emergencies

10. Orbital Cellulitis

9. Chemical (Alkali)
Injury

8. Endophthalmitis

7. AACG

6. Open Globe

5. Microbial Keratitis

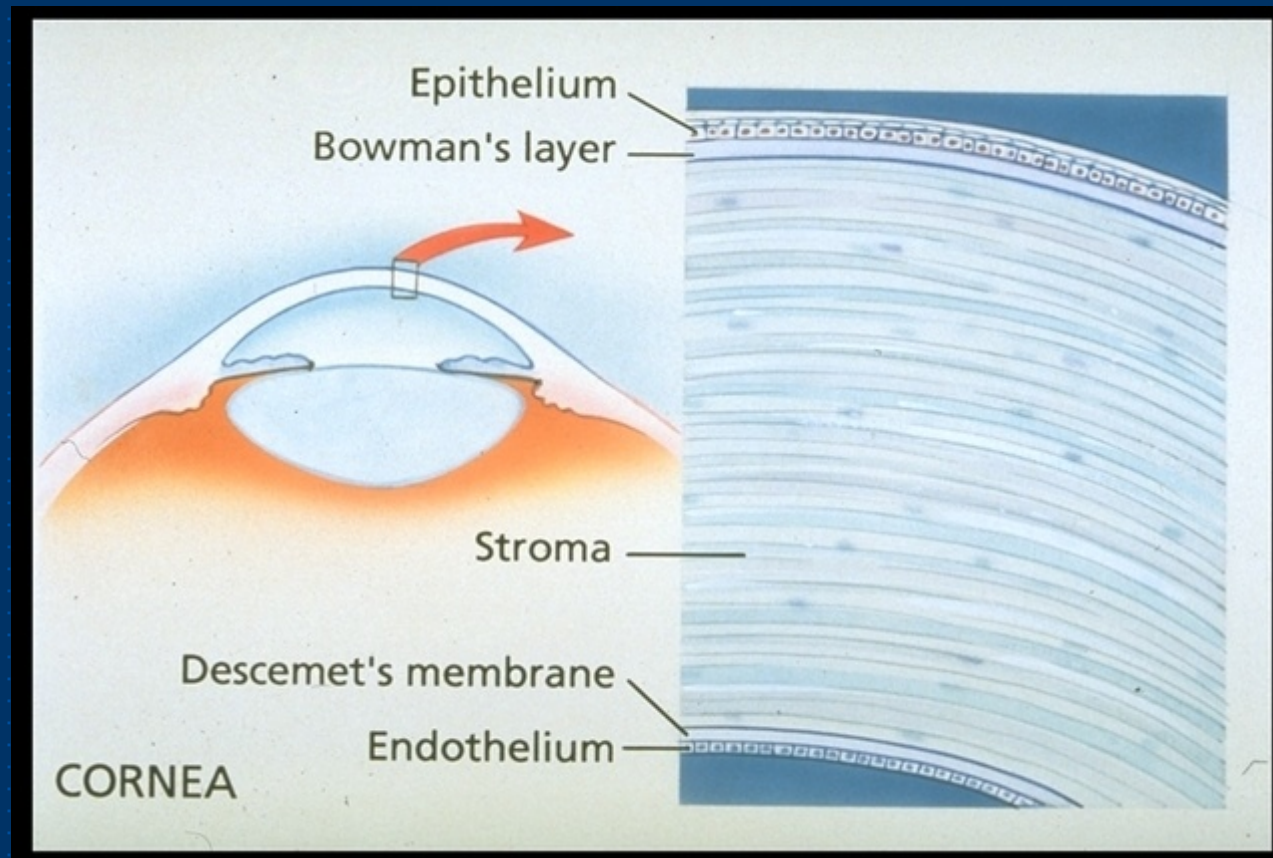
4. Acute 3rd CN palsy

3. Macula-on
Rhegmatogenous
Retinal Detachment

2. CRAO

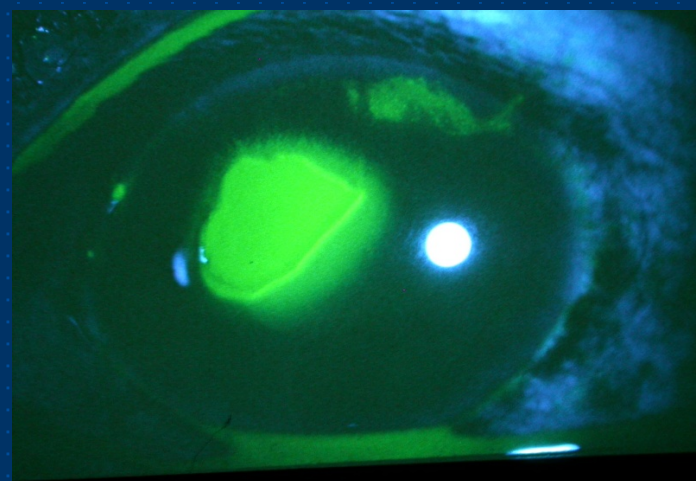
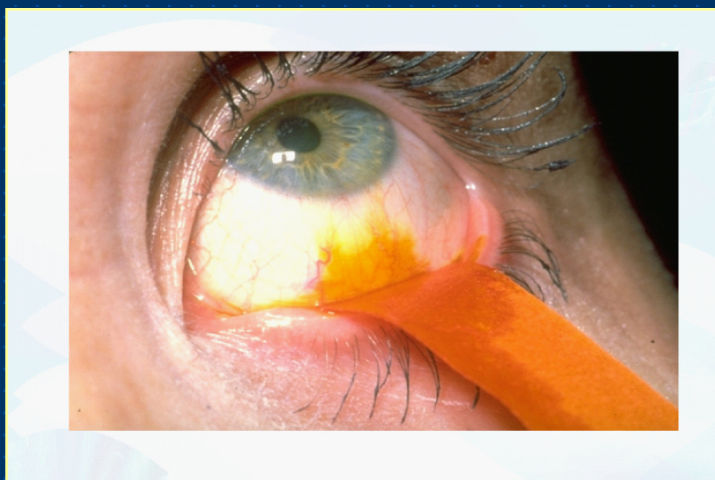
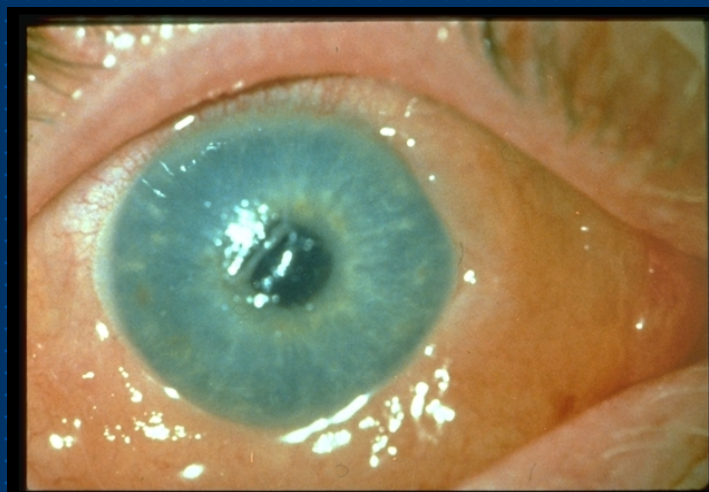
1. Ischemic Optic
Neuropathy

Corneal Abrasion



Corneal Abrasions

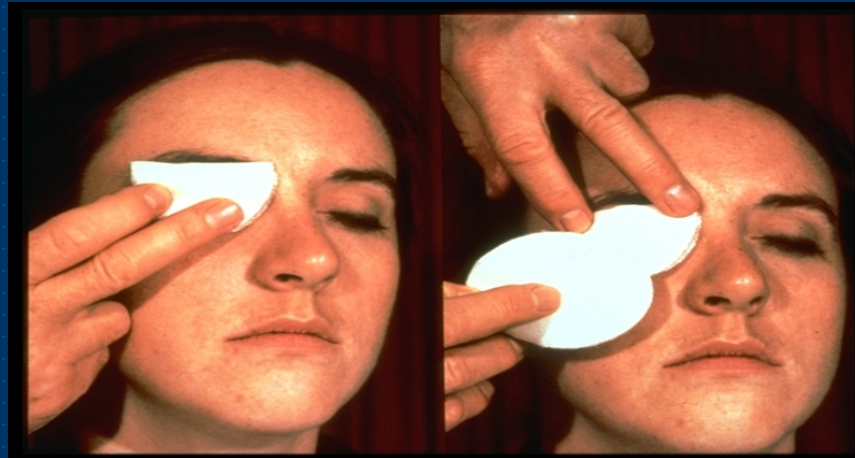
- History of scratching the eye
- Symptoms:
 - Foreign body sensation
 - Pain
 - Tearing
 - Photophobia



Corneal Abrasions

■ Treatment:

- Topical antibiotic
- Pressure patch over the eye
- Refer to ophthalmologist

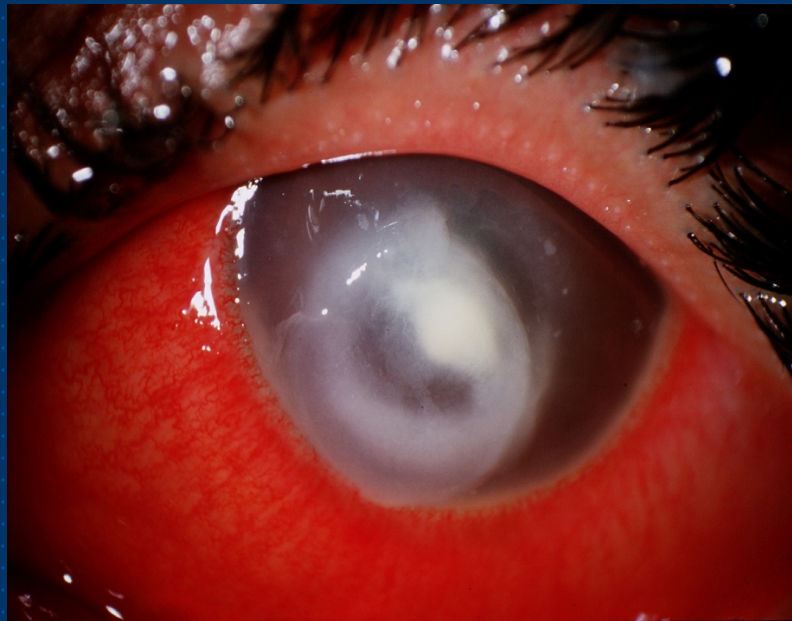


Corneal Ulcer

- Corneal ulcer occurs secondary to lid and conjunctival inflammation but is often due to trauma or contact lens wear
- Bacterial, viral, fungal or parasitic

Corneal Ulcer

- Ocular pain, redness and discharge with decrease vision and white lesion on the cornea



Corneal Ulcer

- Prompt diagnosis of the etiology by doing corneal scraping
- Treatment with appropriate antimicrobial therapy are essential to minimize visual loss

Contact lens wearer

- Any redness occurring for patients who wear contact lens should be managed with extreme caution
- Remove lens
- Rule out corneal infection
- Antibiotics for gram negative organisms
- Do not patch
- Follow up with ophthalmologist in 24 hours

Chemical Injuries

- A vision-threatening emergency
- The offending chemical may be in the form of a solid, liquid, powder, mist, or vapor.
- Can occur in the home, most commonly from detergents, disinfectants, solvents, cosmetics, drain cleaners.....

Chemical Injuries

- Can range in severity from mild irritation to complete destruction of the ocular surface
- Management
 - Instill topical anesthetic
 - Check for and remove foreign bodies

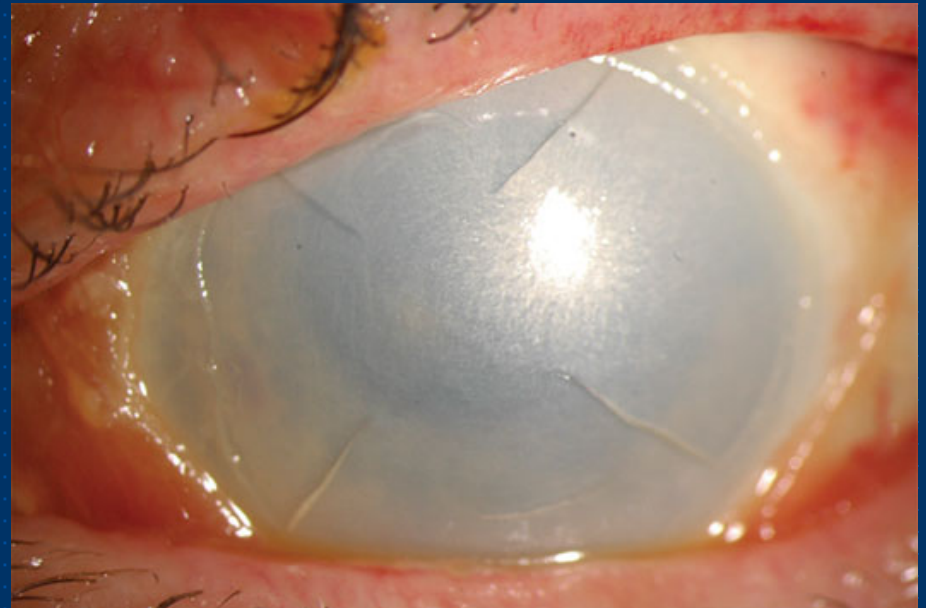
Chemical Injuries

- Immediate irrigation essential, preferably with saline or Ringer's lactate solution, for at least 30 minutes



Chemicals Injuries

- Irrigation should be continued until neutral pH is reached (i.e., 7.0)
- Instill topical antibiotic
- Frequent lubrications
- Oral pain medication
- Refer promptly to ophthalmologist



Corneal and Conjunctival Foreign Bodies

- History of trauma
- Foreign body sensation-Tearing



Corneal and Conjunctival Foreign Bodies

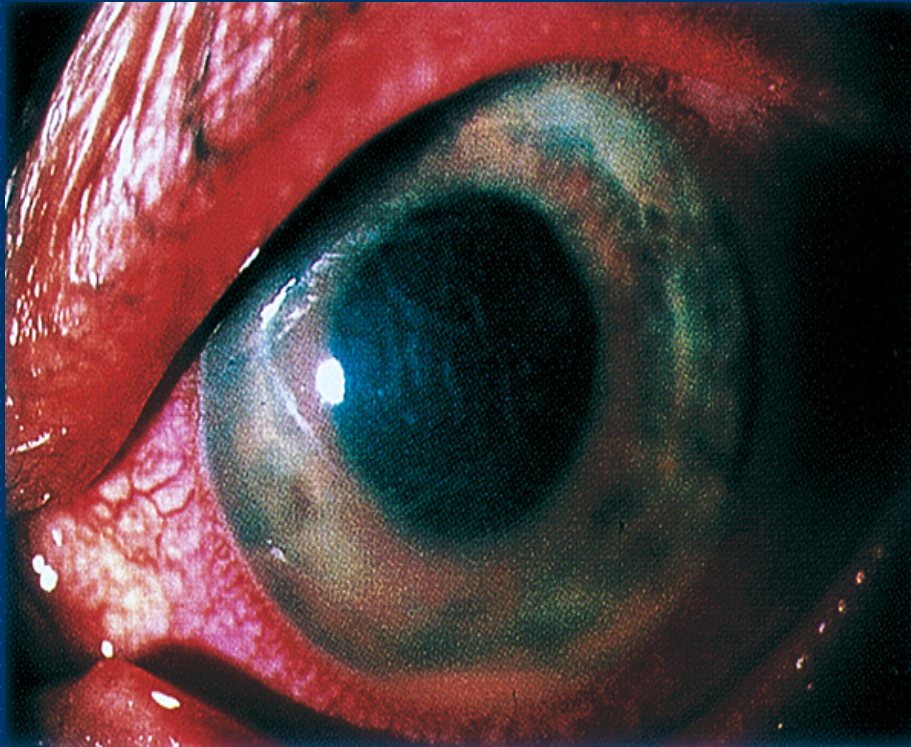
■ Management

- Instill topical anesthetic
- Removal of the foreign body
- Topical antibiotic
- Treat corneal abrasion

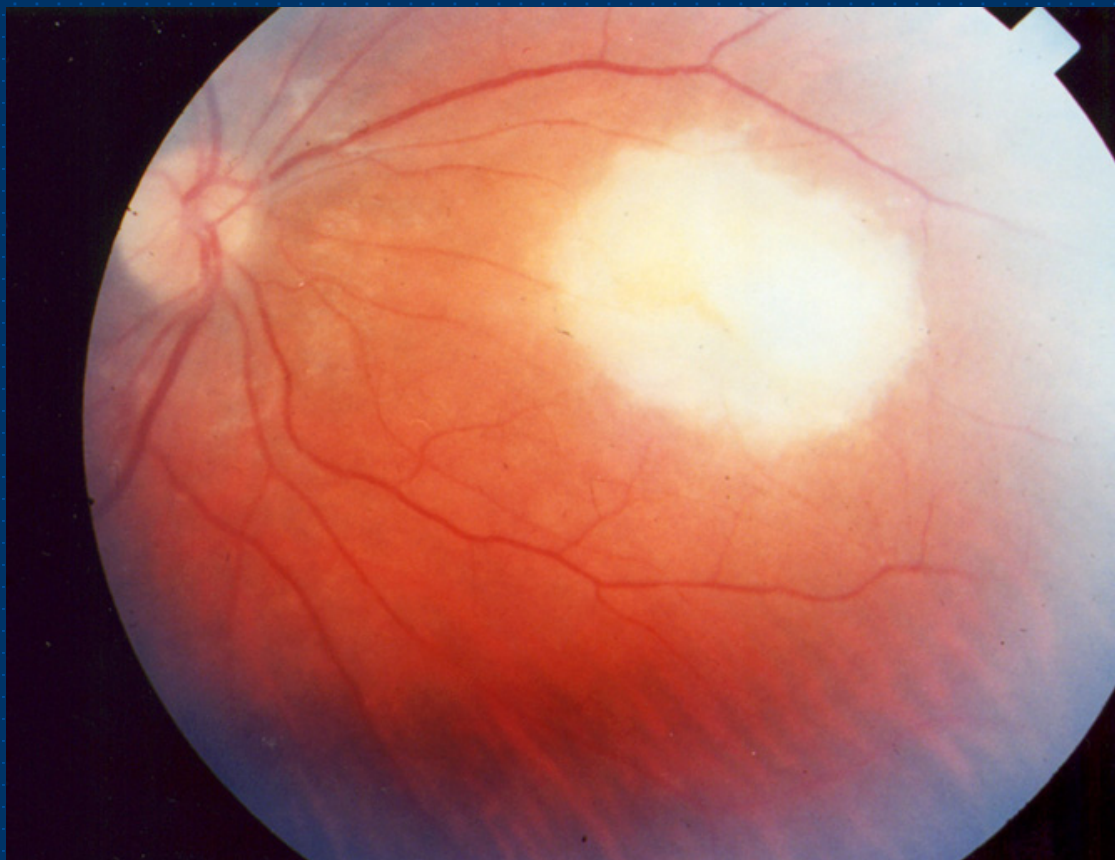
Uveitis

- Inflammation of the uveal tissue (iris, ciliary body, or choroid), retina, blood vessels, optic disc, and vitreous can be involved.
- Etiology
 - Idiopathic
 - Inflammatory diseases
 - HLA B27, Ankylosing spondylitis, IBD, Reiter's syndrome, Psoriatic arthritis
 - Sarcoidosis, Behcet's, Vogt-Koyanagi-Harada Syndrome
 - Infectious
 - Toxoplasmosis
 - Tuberculosis
 - Syphilis

Uveitis



Uveitis



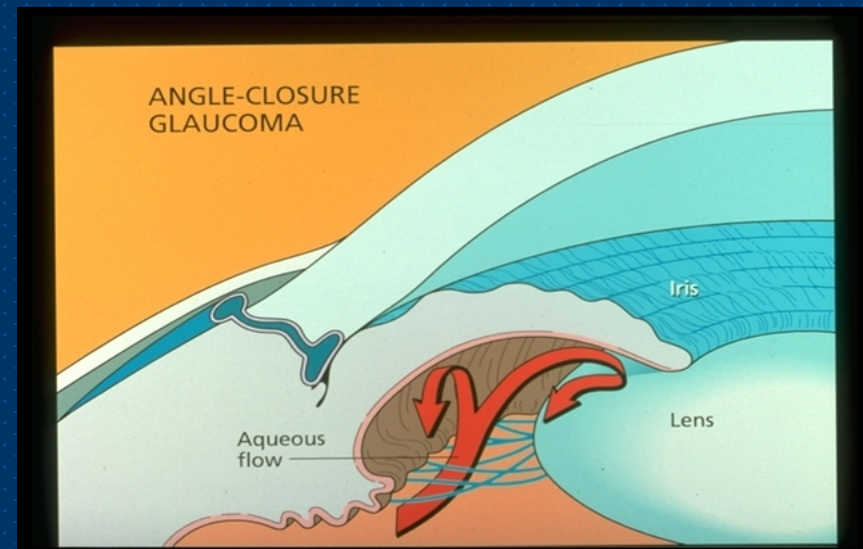
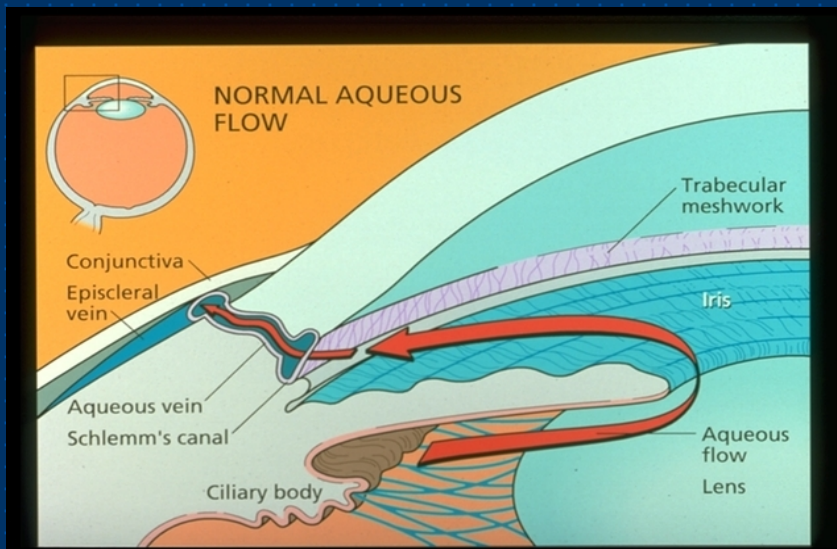
Uveitis

■ Management

- Identify possible cause
- Treat infectious agent
- Topical steroid
- Topical cycloplegic
- Systemic immunosuppressive medication
 - Steroid
 - Cyclosporine
 - Methotrexate
 - Azathioprine
 - Cyclophosphamide
- Immunomodulating agents
 - Infliximab

Acute Angle Closure Glaucoma

- Result from peripheral iris blocking the outflow of fluid

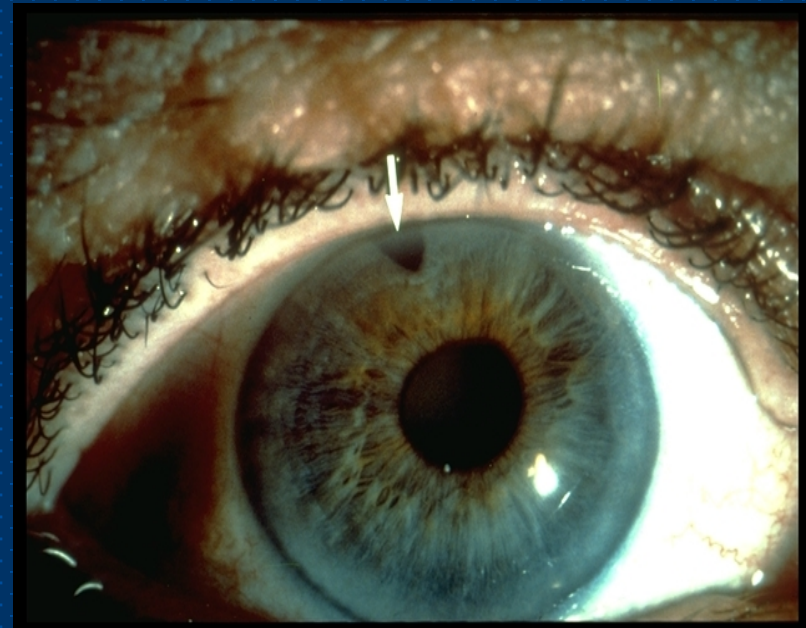
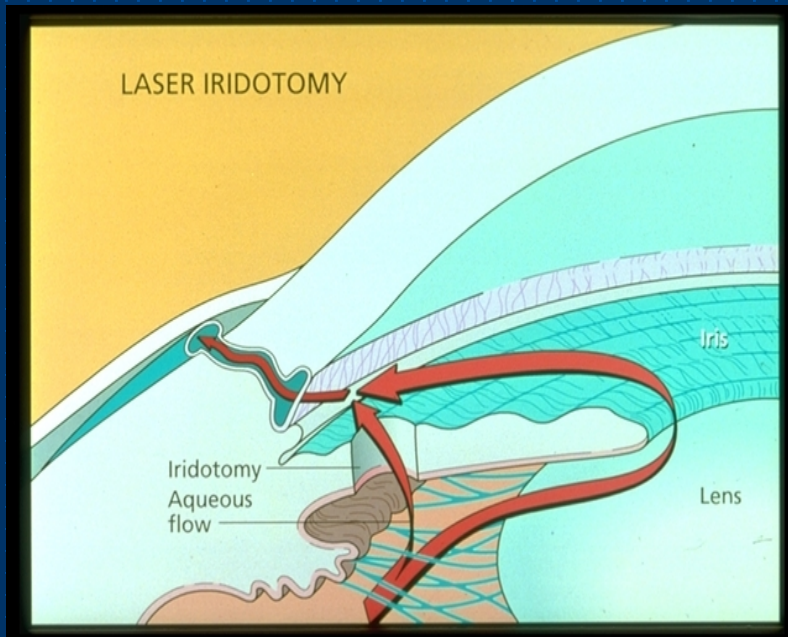


Acute Angle Closure Glaucoma

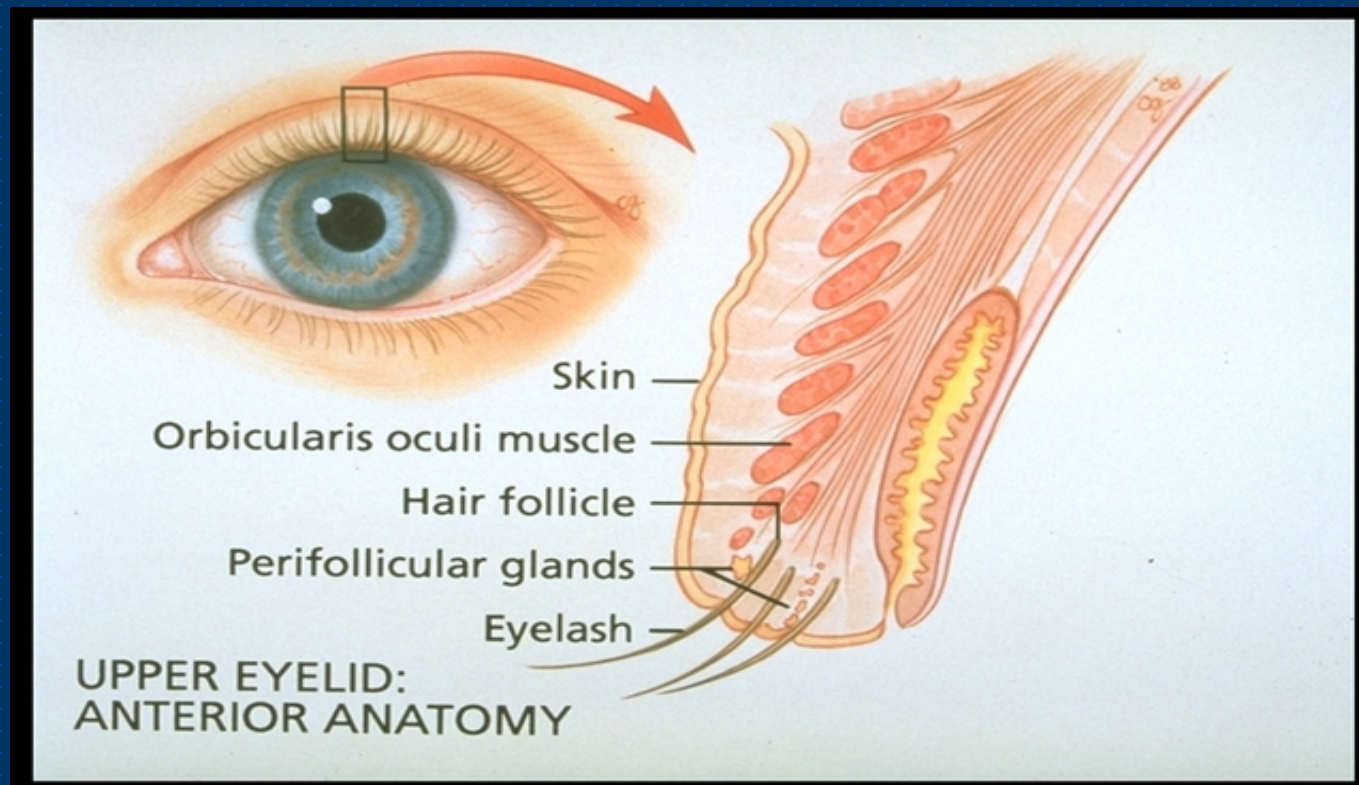
- Present with pain, redness, mid-dilated pupil with decrease vision and coloured haloes around lights
- Severe headache or nausea and vomiting
- Intraocular pressure is elevated
- Can cause severe visual loss due to optic nerve damage
- Medical Tx and peripheral laser iridotomy will be curative in most cases

Acute Angle Closure Glaucoma

- Medical Tx and peripheral laser iridotomy will be curative in most cases



Preseptal Cellulitis



Preseptal Cellulitis

- Lid swelling and erythema
- Visual acuity ,motility, pupils, and globe are normal



Preseptal Cellulitis

■ Etiology

- Puncture wound
- Laceration
- Retained foreign body from trauma
- Vascular extension, or extension from sinuses or another infectious site (e.g., dacryocystitis, chalazion)
- Organisms
 - Staph aureus – Streptococci- H.influenzae

Preseptal Cellulitis

■ Management:

- Warm compresses
- Systemic antibiotics
- CT sinuses and orbit if not better or +ve history of trauma

Orbital Cellulitis

- Pain
- Decreased vision
- Impaired ocular motility/double vision
- Afferent pupillary defect
- Conjunctival chemosis and injection
- Proptosis
- Optic nerve swelling



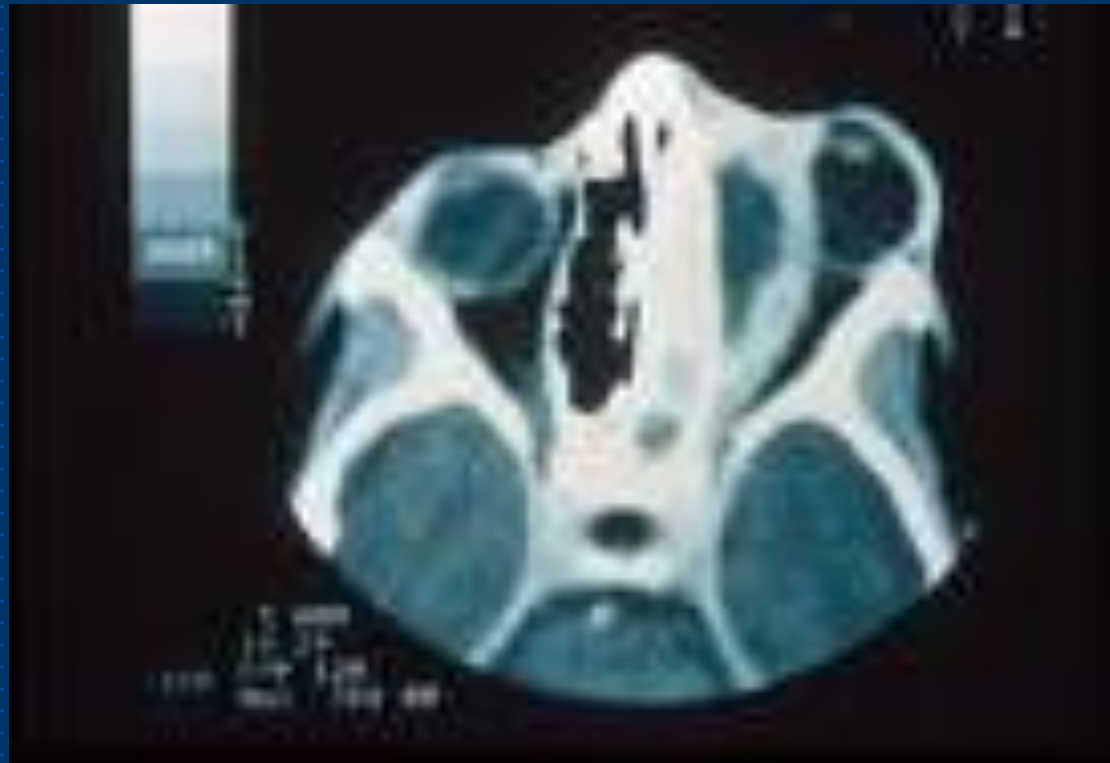


Orbital Cellulitis

■ Management:

- Admission
- Intravenous antibiotics
- Nasopharynx and blood cultures
- Surgery maybe necessary

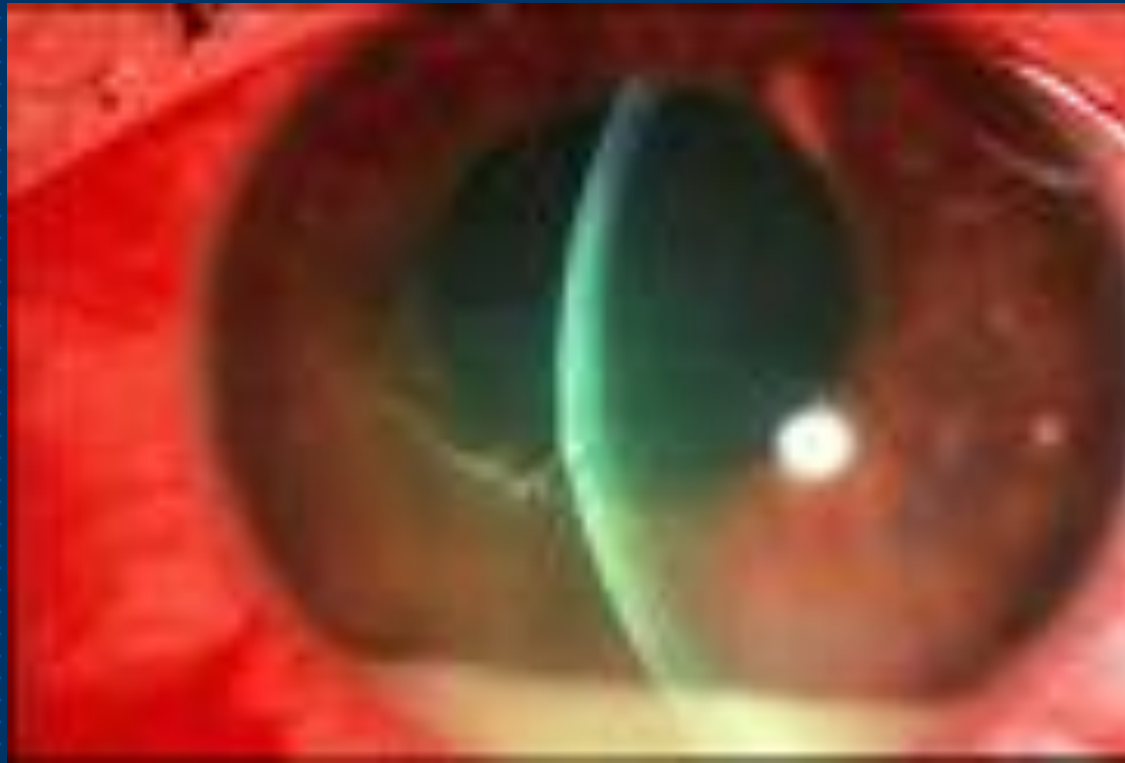
Orbital Cellulitis



Endophthalmitis

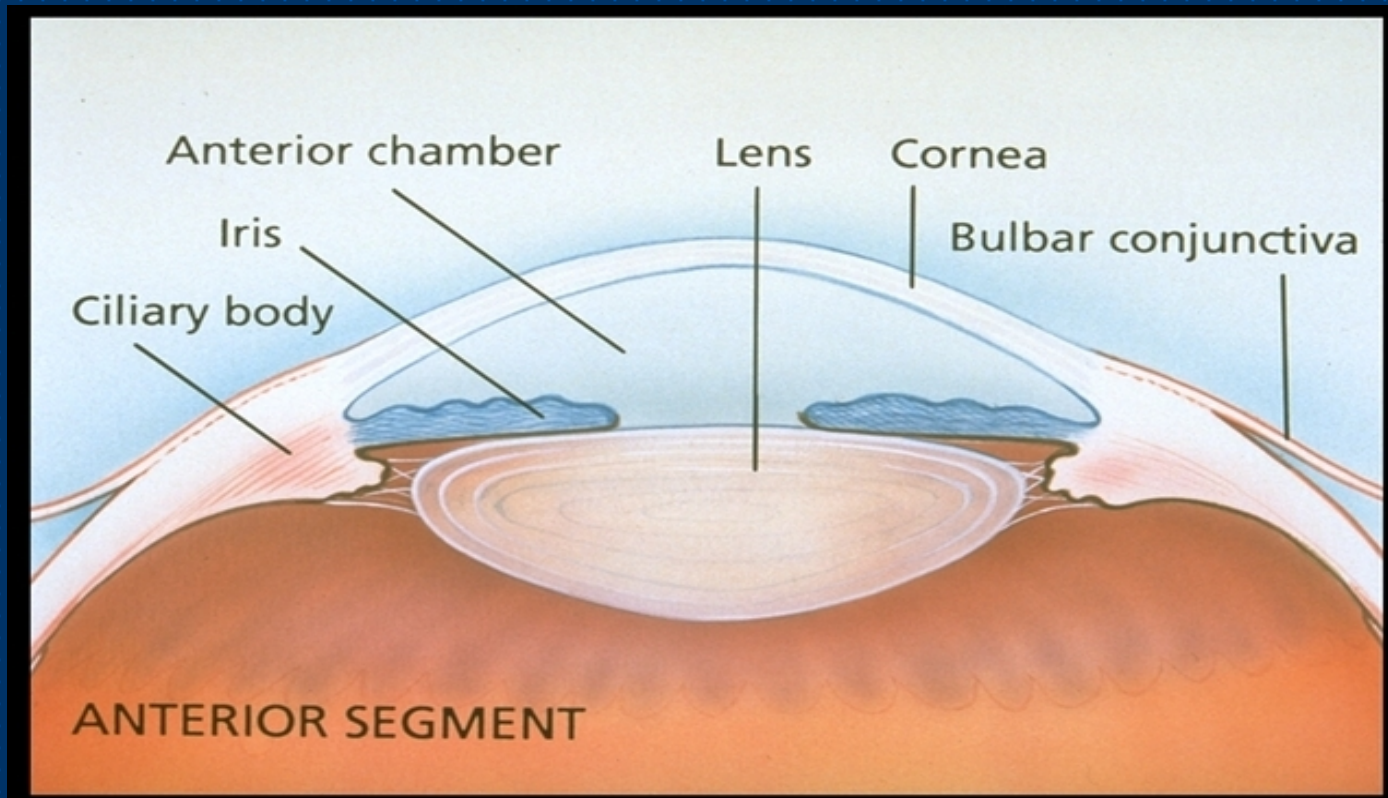
- Potentially devastating complication of any intraocular surgery
- Any patient in the early postoperative period (within 6 weeks of surgery) c/o pain or decrease vision should be evaluated immediately

Endophthalmitis



Endophthalmitis

- Management
 - Vitreous sample for culture
 - Intravitreal antibiotics injection plus topical antibiotics



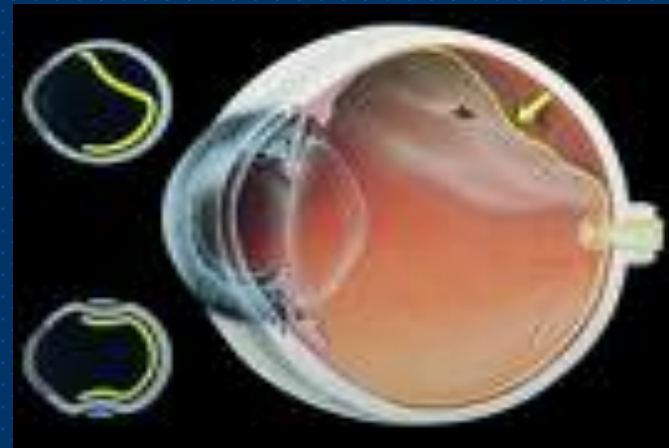
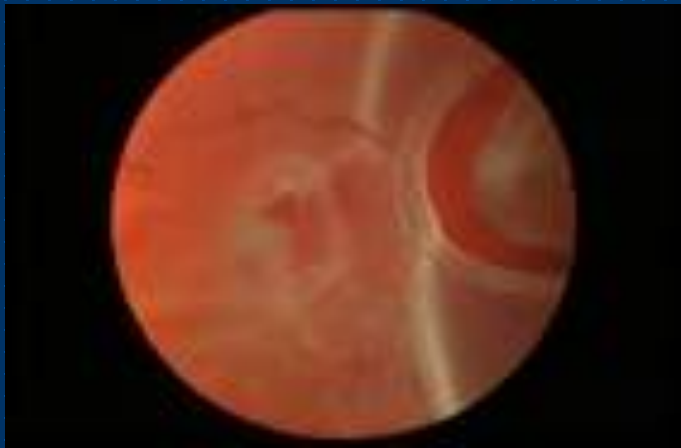
Retinal Detachment

■ Symptoms

- Flashes, floaters, a curtain or shadow moving over the field of vision
- Peripheral and/ or central visual loss

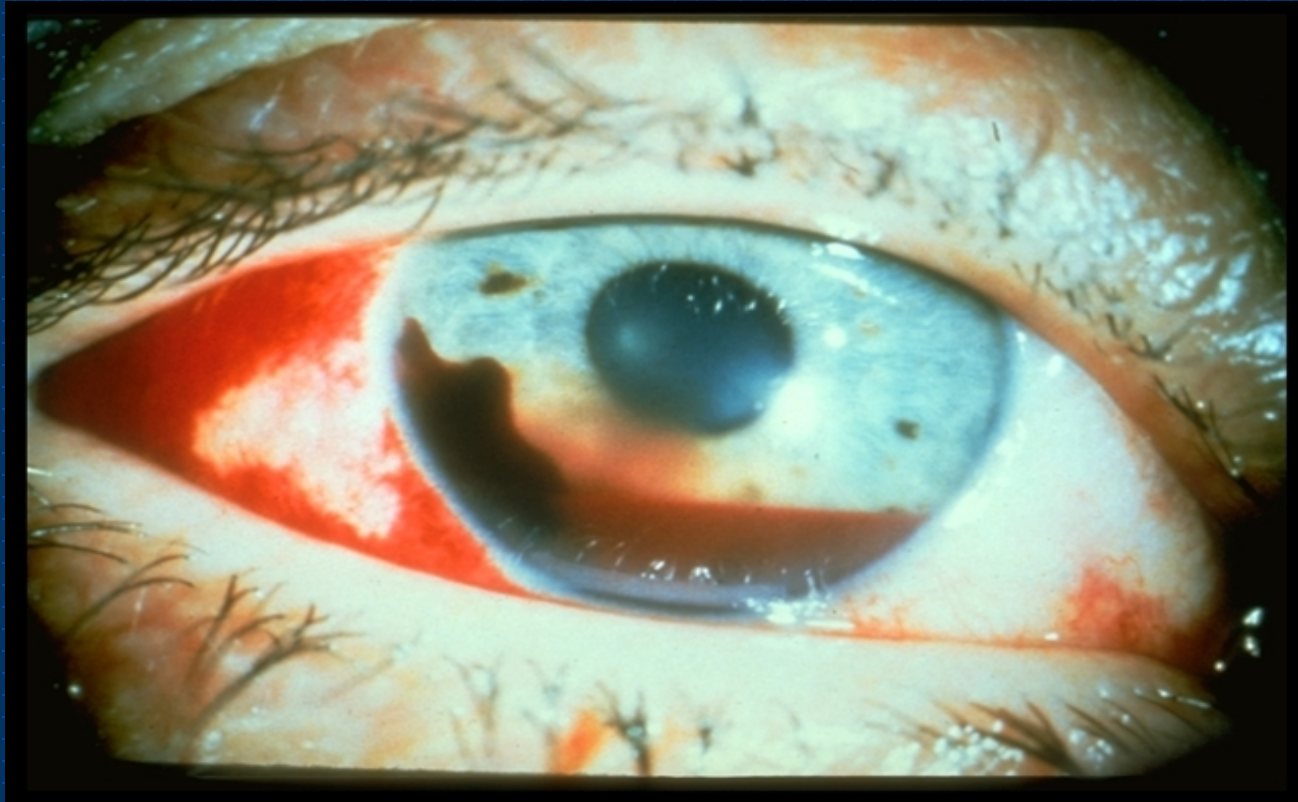


Retinal Detachment



Hyphema

- Can occur with blunt or penetrating injury
- Blood in the anterior chamber

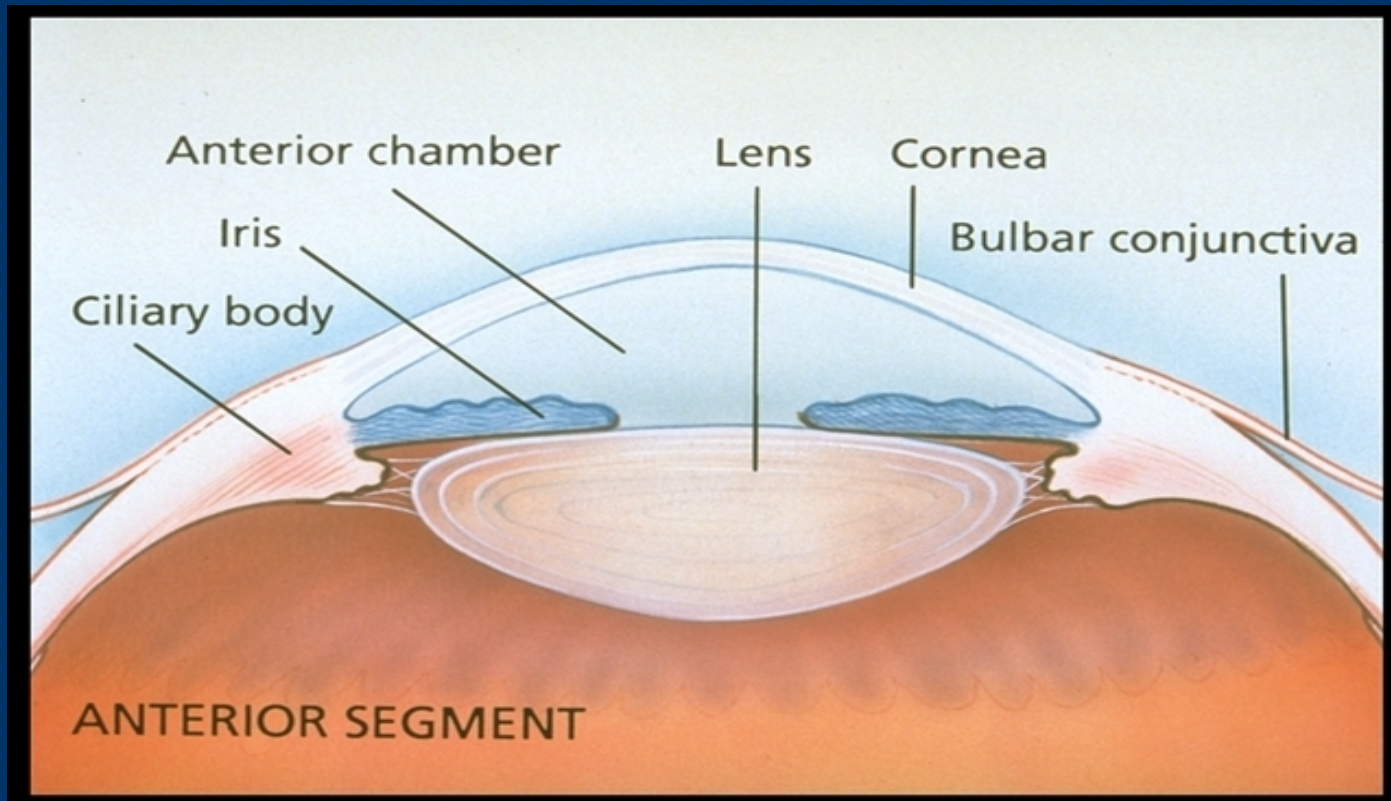


Hyphema

- Can lead to high intraocular pressure
- Detailed history (Sickle cell)
- Management
 - Bed rest
 - Topical steroid
 - Topical cycloplegic
 - Antifibrinolysis agents (Tranexamic acid)
 - Surgical evacuation

Ruptured Globe

- Suspect a ruptured globe if:
 - Severe blunt trauma
 - Sharp object



Ruptured globe

- Suspect a ruptured globe if:
 - Bullous subconjunctival hemorrhage
 - Uveal prolapse (Iris or ciliary body)
 - Irregular pupil
 - Hyphema
 - Vitreous hemorrhage
 - Lens opacity
 - Lowered intraocular pressure

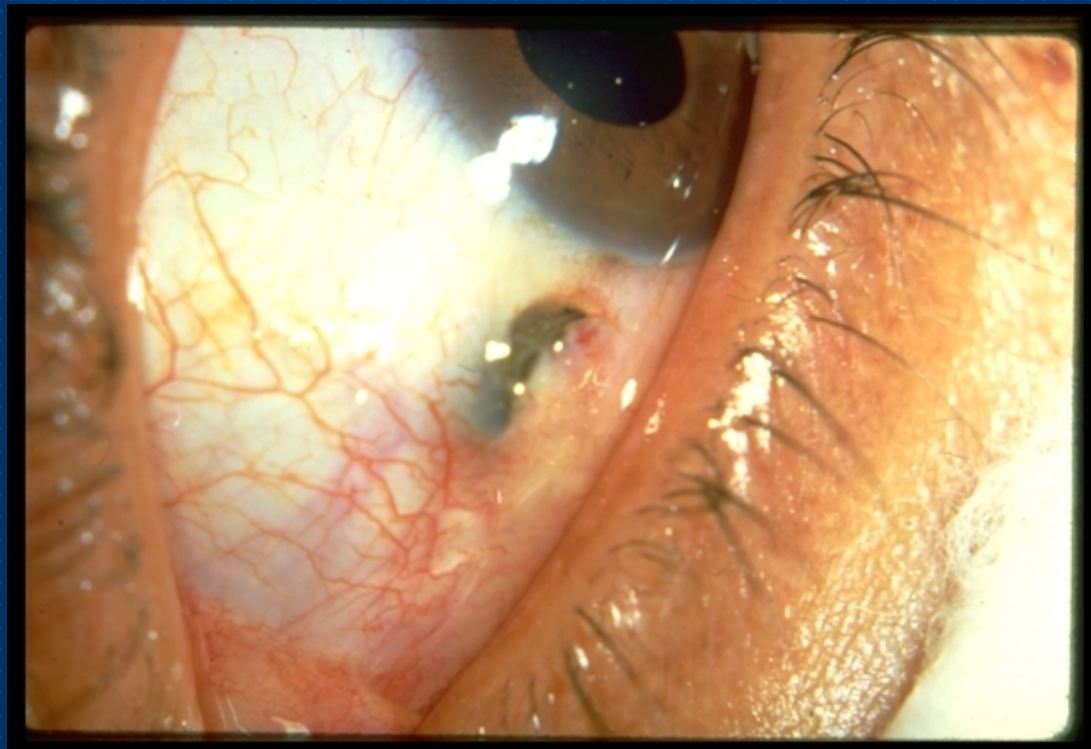
Ruptured Globe

- Bullous subconjunctival hemorrhage



Ruptured Globe

- Uveal prolapse (Iris or ciliary body)



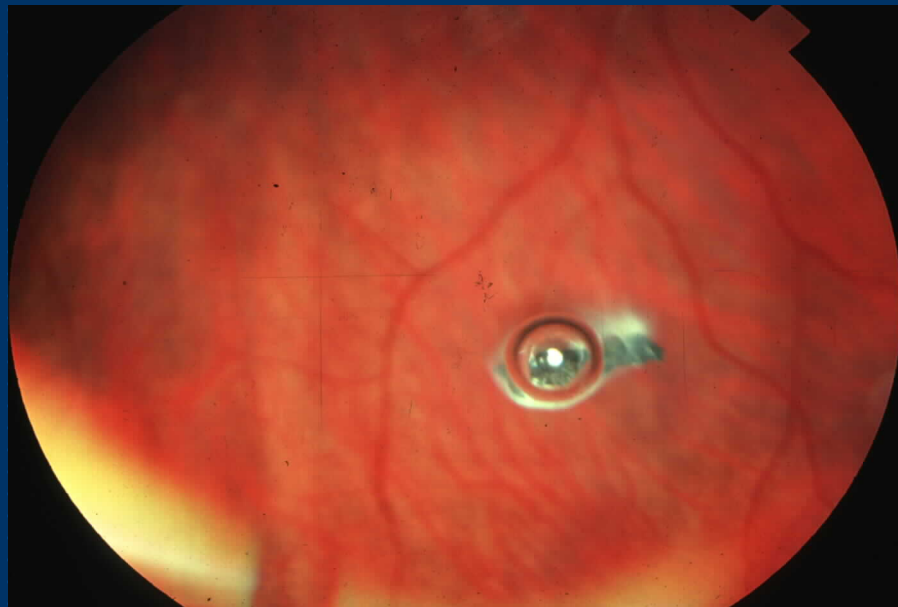
Ruptured Globe

- Irregular pupil



Ruptured Globe

- Intraocular foreign body



LD 1 1700 MOV



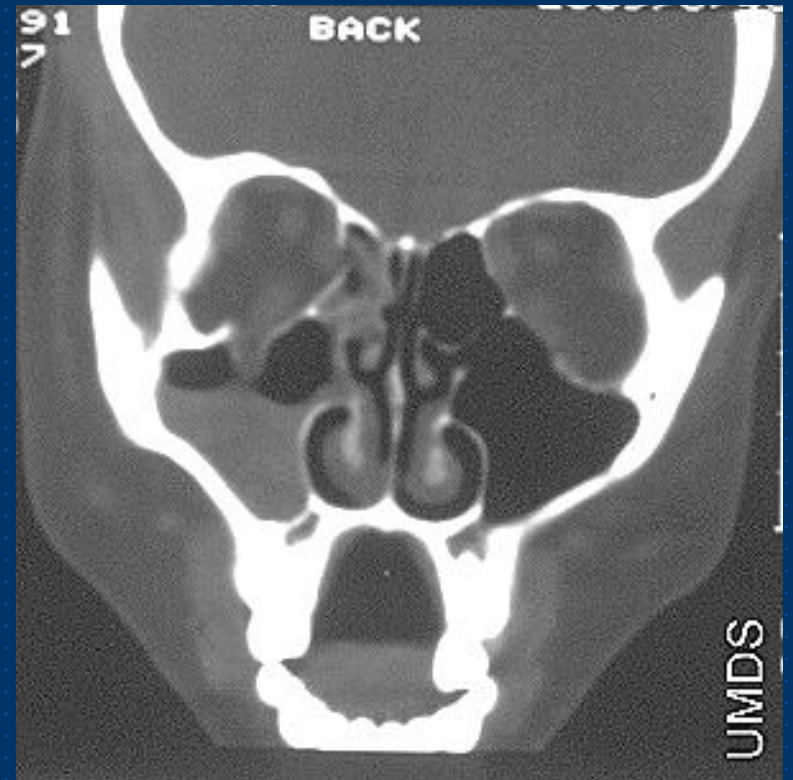
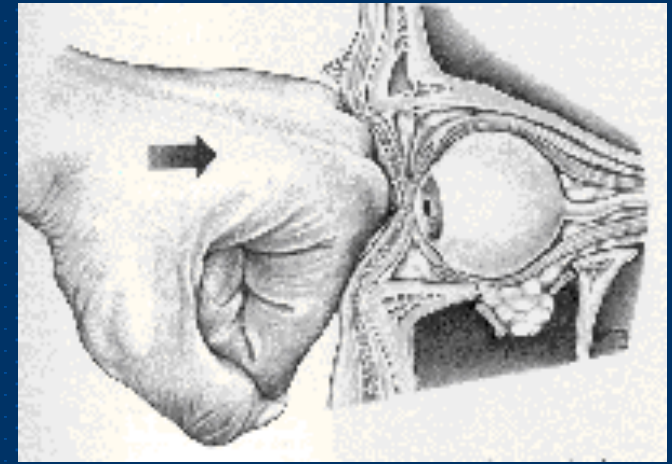
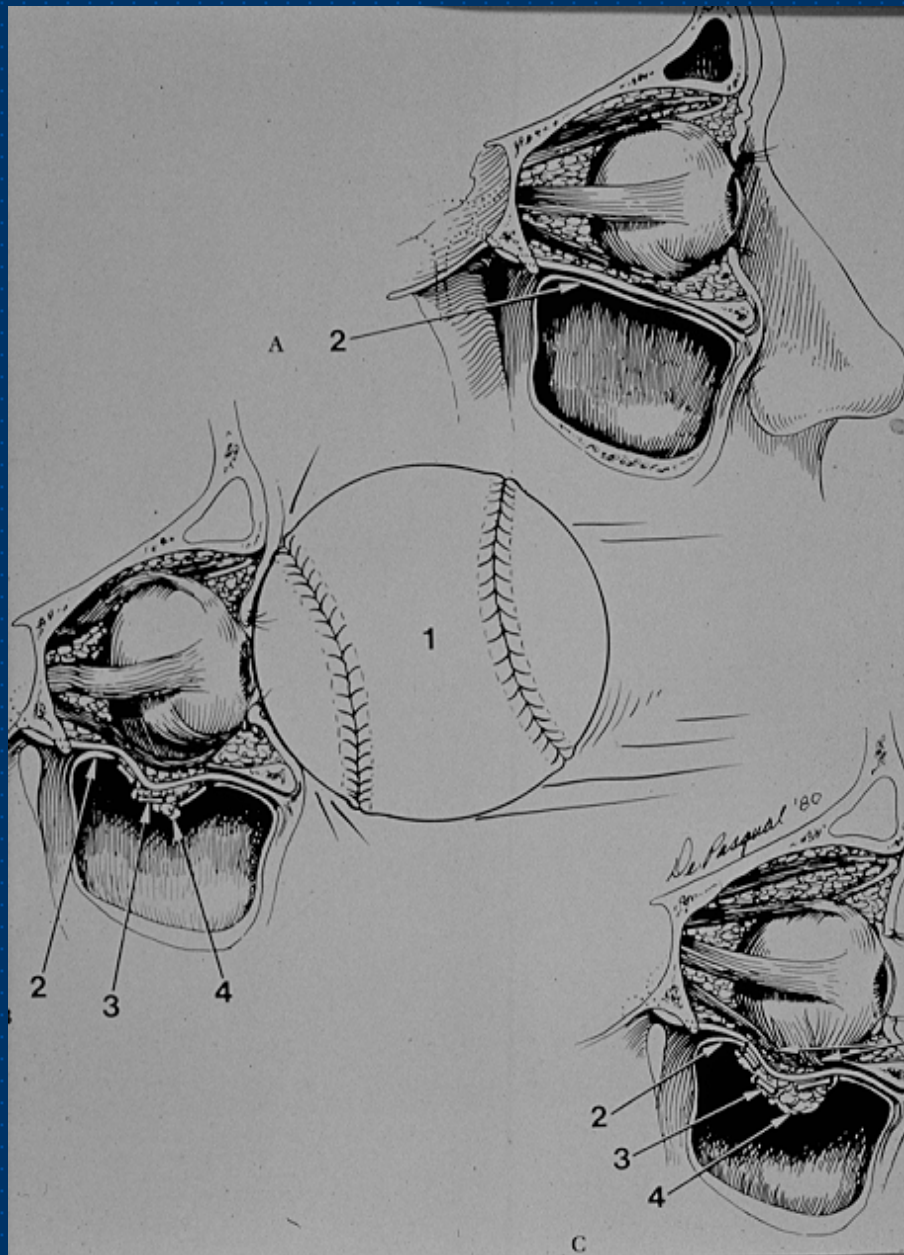
If globe ruptured or laceration is suspected

- Stop examination
- Shield the eye
- Give tetanus prophylaxis
- Refer immediately to ophthalmologist

Orbital Floor Fractures

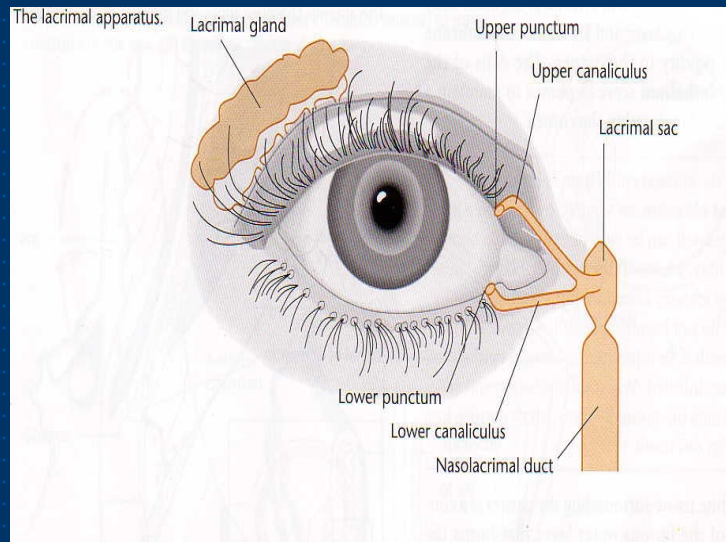
- Assess ocular motility
- Assess sensation over cheek and lip
- Palpate for bony abnormality





Lid Laceration

- Can result from sharp or blunt trauma
- Rule out associated ocular injury



Thank you