



WHY DOES THE EYE GET RED?

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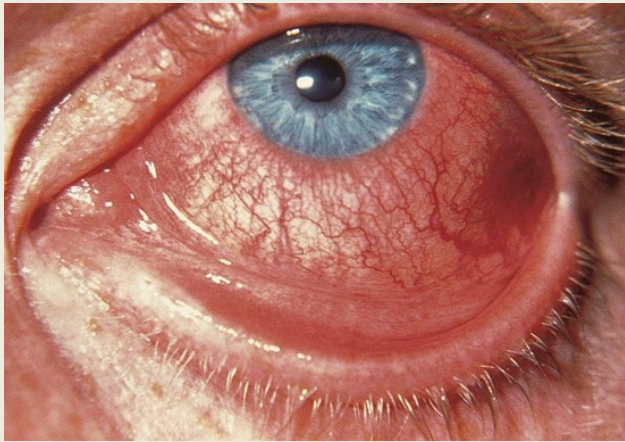
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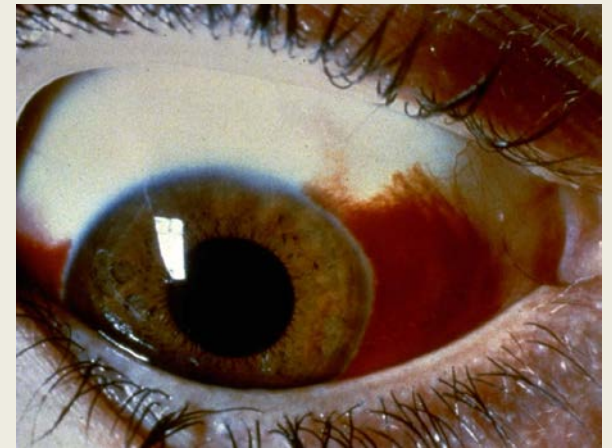
OBJECTIVES

- To identify what is red when looking at a “red eye”
- To identify where the redness may be located anatomically
- To learn the different etiologies of a “red eye”

WHAT IS RED IN A “RED EYE”?

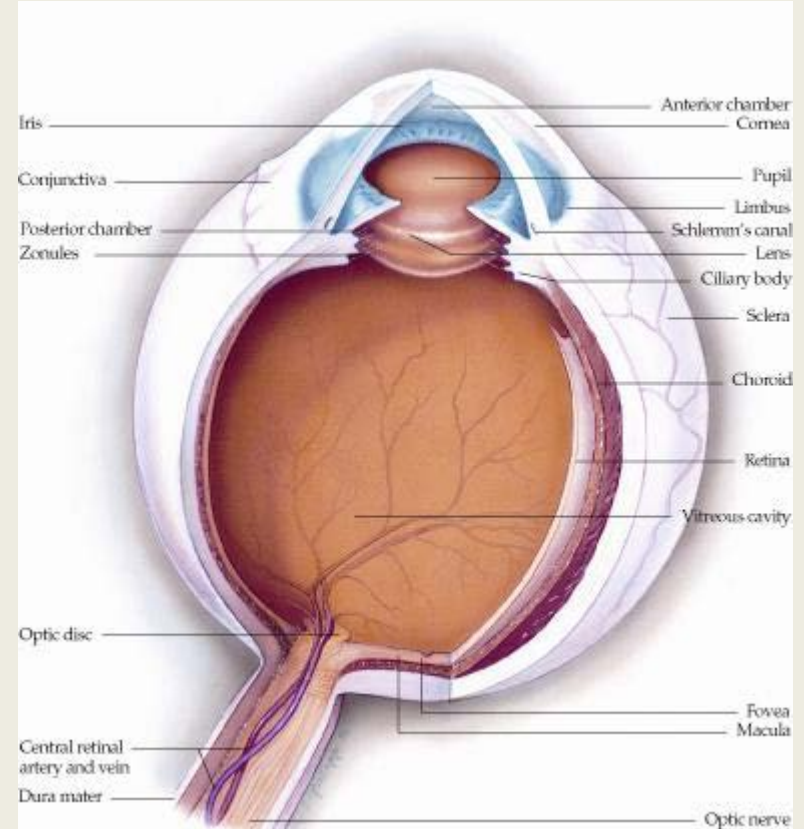
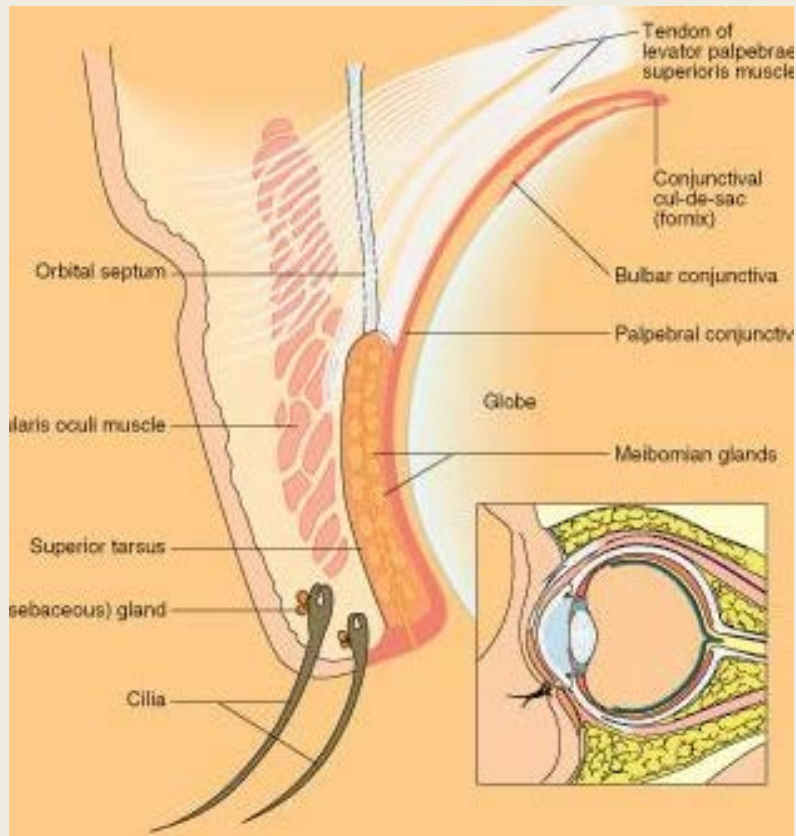


Blood!



ANATOMY REVIEW

Anatomic location of blood in “red eye” helps narrow the differential



WHERE IS THE REDNESS ANATOMICALLY?

- Blood in the conjunctiva, within prominent or dilated superficial vessels.
 - *Conjunctival Injection*
- Blood outside of the vessels, between the sclera and the conjunctiva
 - *Subconjunctival hemorrhage*
- Blood within the eye, pooled in the anterior chamber
 - *Hyphema*



CONJUNCTIVAL INJECTION



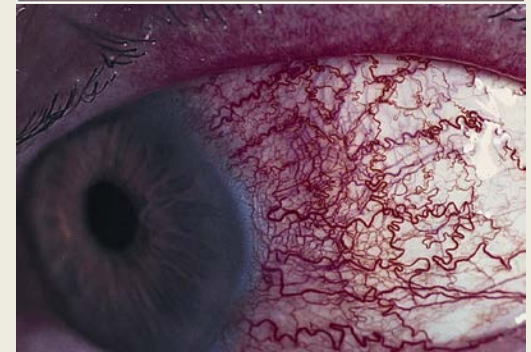
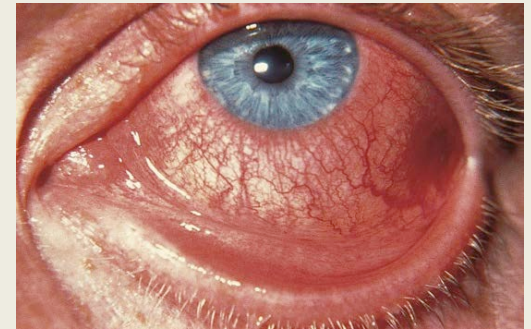


CONJUNCTIVAL INJECTION

- Blood in the conjunctiva, within prominent or dilated superficial vessels.
- Pathologies from different anatomic origins can all manifest with conjunctival injection
- Several different mechanisms can lead to conjunctival injection
 - Inflammation
 - Irritation
 - Infection
 - Increased blood flow

CONJUNCTIVAL INJECTION

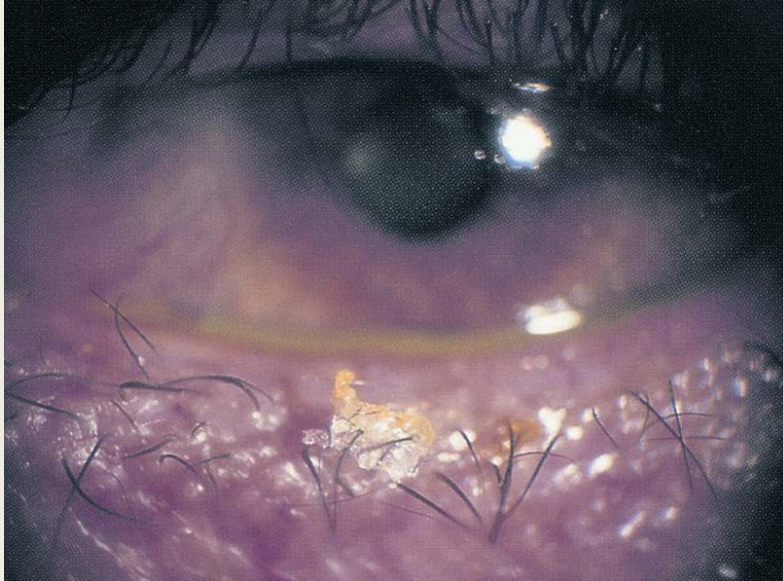
- Identifying geographic patterns redness on the conjunctiva can help further narrow your differential
 - Diffuse: Injection throughout conjunctiva
 - Sectoral/focal: Injection limited to specific area of conjunctiva
 - Ciliary Flush: Ring of injection surrounding the cornea



CONJUNCTIVAL INJECTION

■ Lids/Lashes

Blepharitis



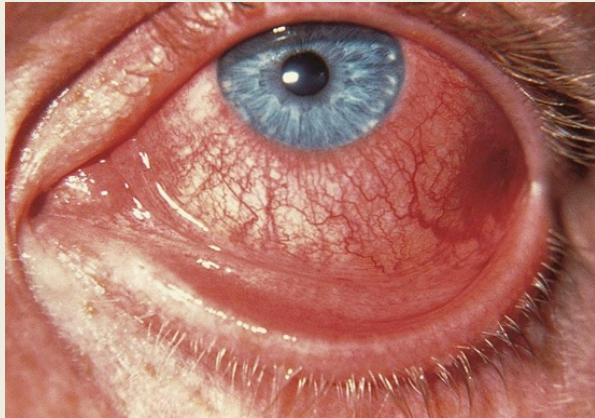
Post-Septal Orbital cellulitis



CONJUNCTIVAL INJECTION

■ Conjunctiva

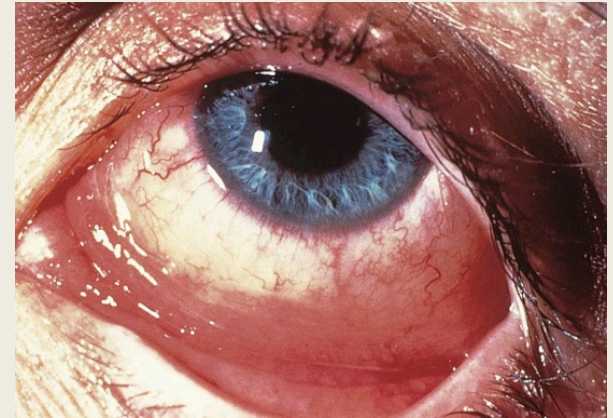
Viral Conjunctivitis



Bacterial Conjunctivitis



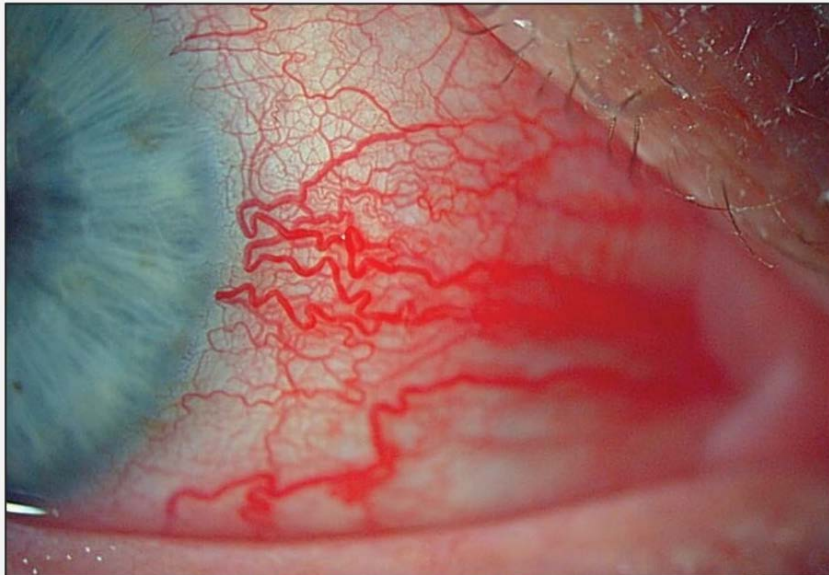
Allergic Conjunctivitis



CONJUNCTIVAL INJECTION

■ Sclera

Episcleritis



Scleritis



CONJUNCTIVAL INJECTION

■ Cornea

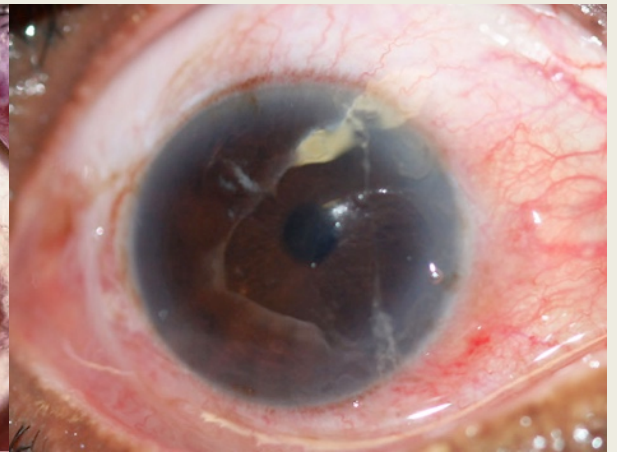
**Keratitis/Corneal
Ulceration**



Dry Eye



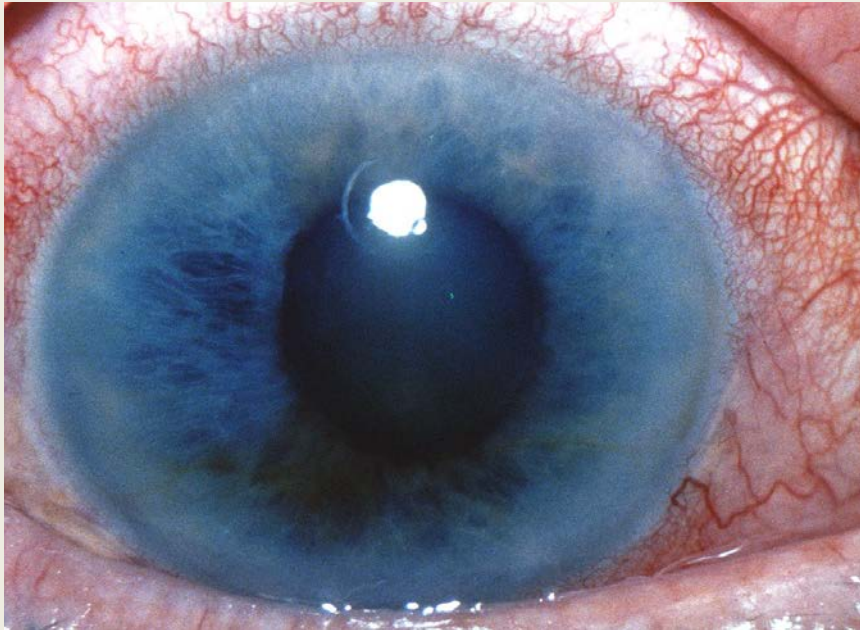
**Corneal
Abrasion**



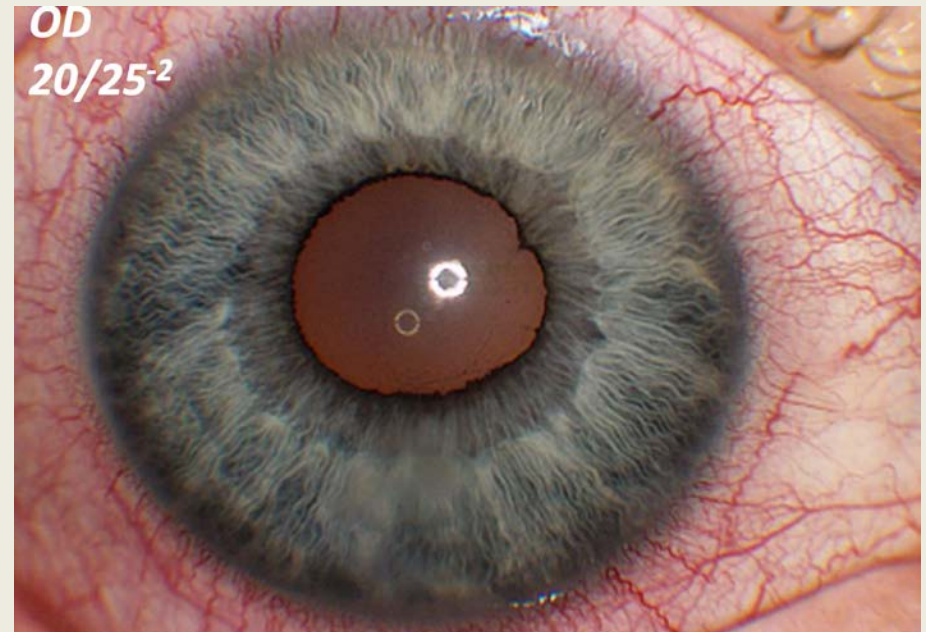
CONJUNCTIVAL INJECTION

■ Anterior Chamber

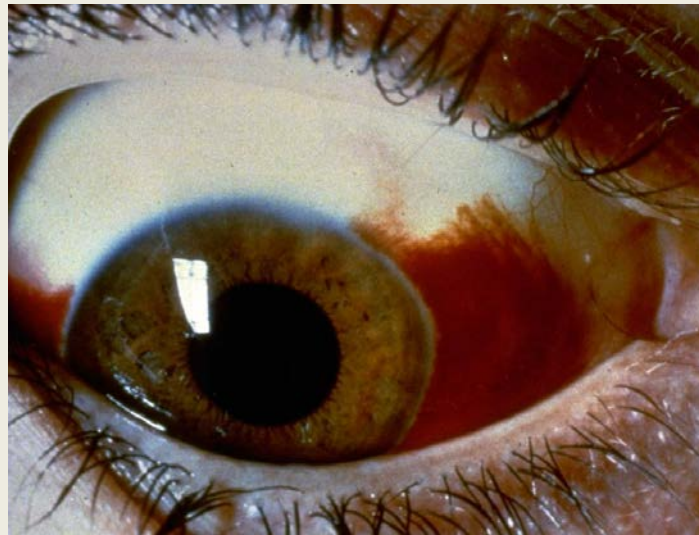
Acute Angle Closure
Glaucoma



Anterior Uveitis /
Iritis

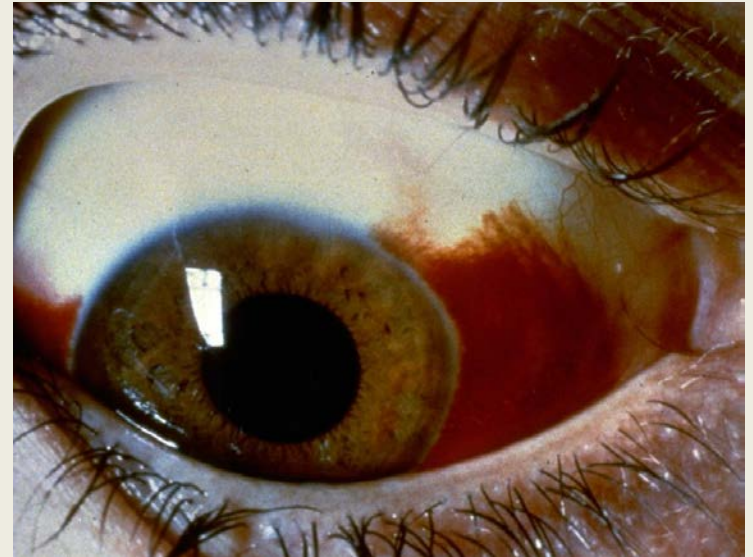


SUBCONJUNCTIVAL HEMORRHAGE

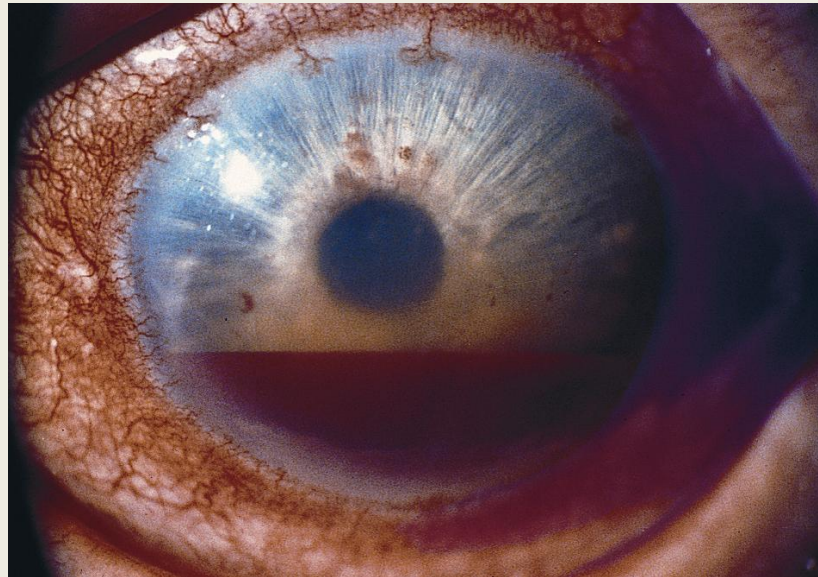


SUBCONJUNCTIVAL HEMORRHAGE

- Blood outside of the vessels, between the sclera and the conjunctiva
 - Blood is NOT inside the eye
- Caused by rupture of capillaries
- Can look scary (especially to patients), but subconjunctival hemorrhages usually require no treatment, resolve spontaneously and do NOT affect vision.

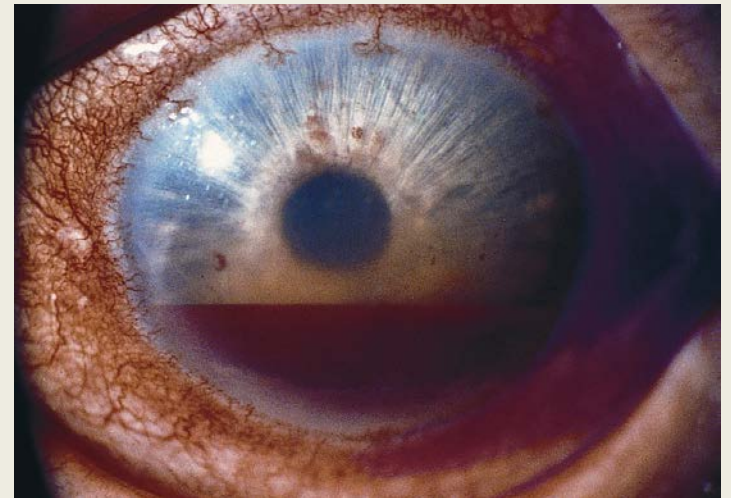


HYPHEMA



HYPHEMA

- Blood within the eye, pooled in the anterior chamber
 - This is a true intraocular hemorrhage
- Typically caused by blunt trauma
 - Often due to tears in the highly vascular iris
- Traumatic inflammation and obstruction of aqueous humor drainage can lead to concurrent conjunctival injection





CONCLUSION

■ Objectives

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