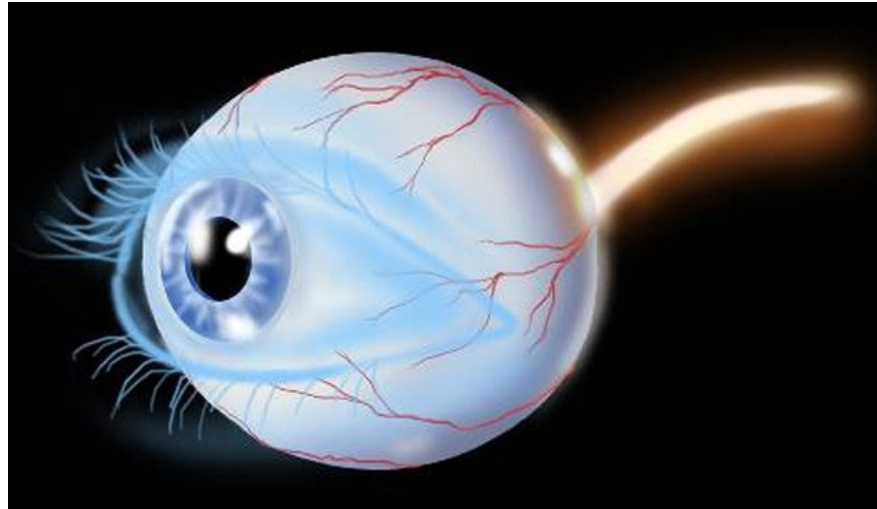


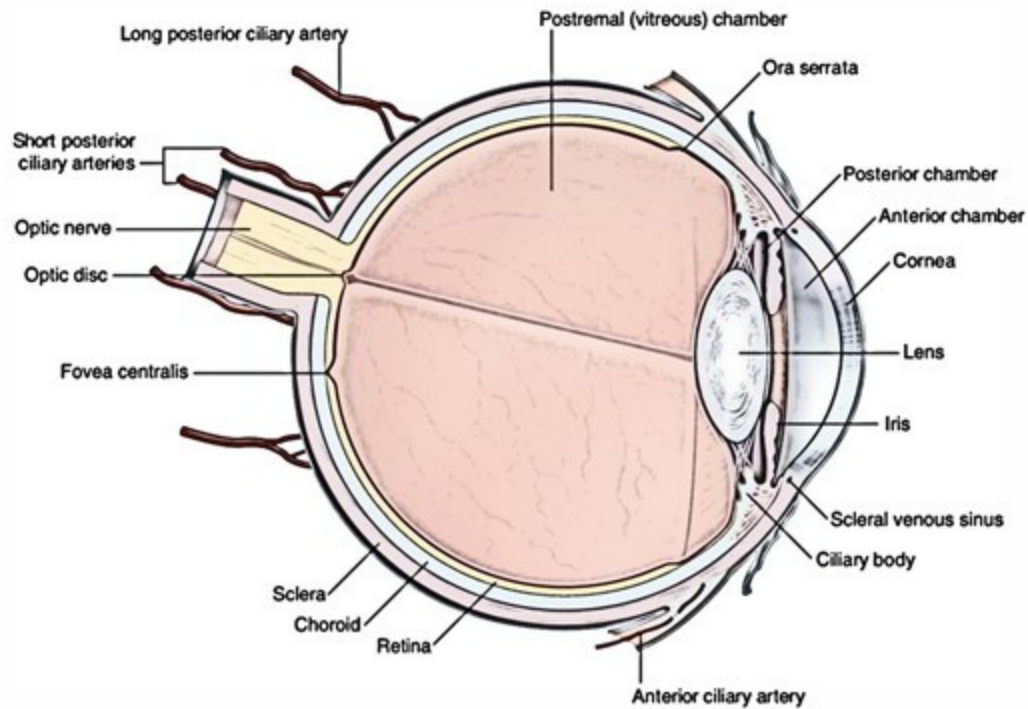
# Anatomy of the eye and orbit



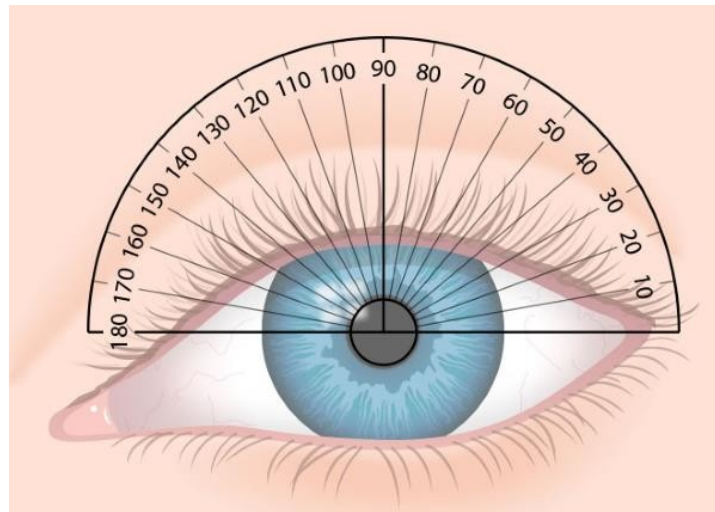
Department of Ophthalmology

LF MU

# Bulbus oculi

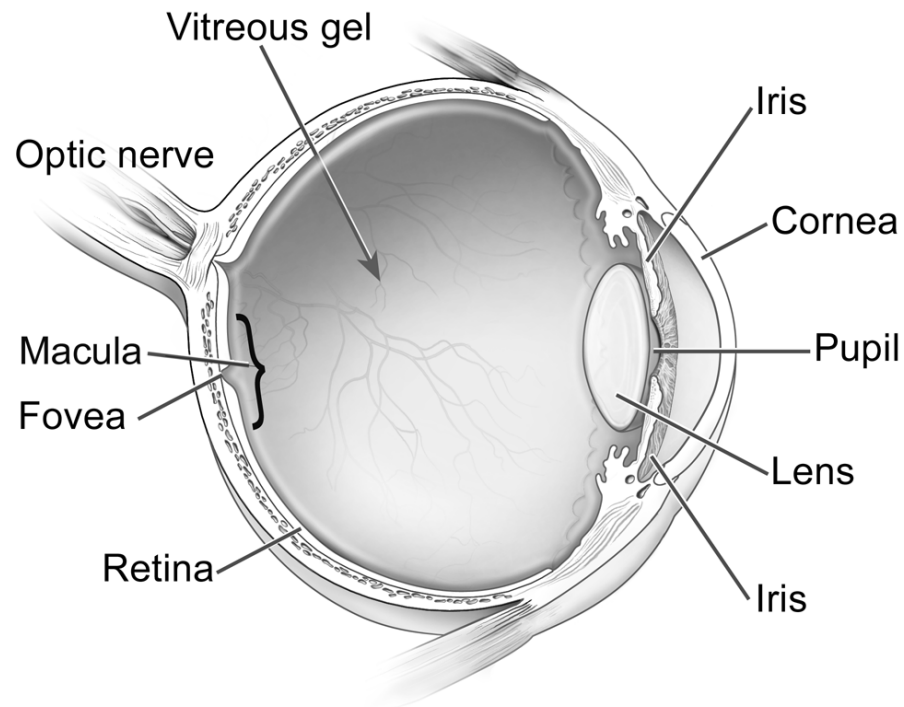


# Bulbus oculi



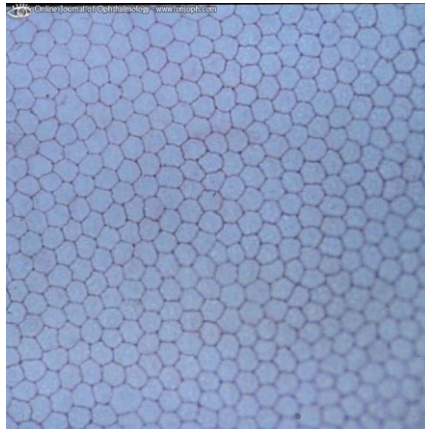
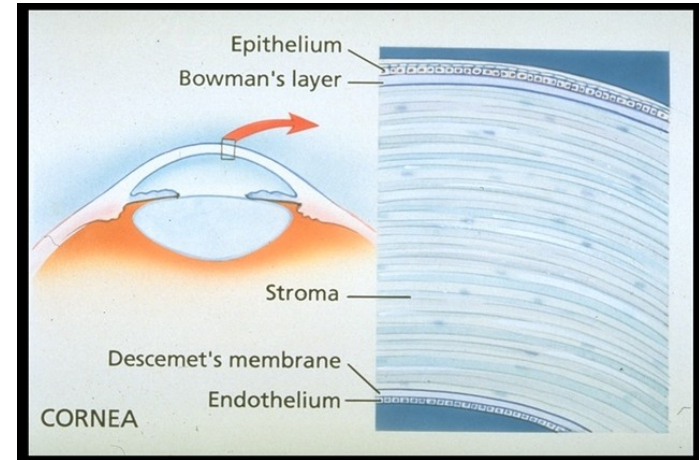
# Bulbus oculi

- Axial length – 24 mm (1 mm – 3D)
- Optic power 63 D (cornea 43 D, lens 20D)

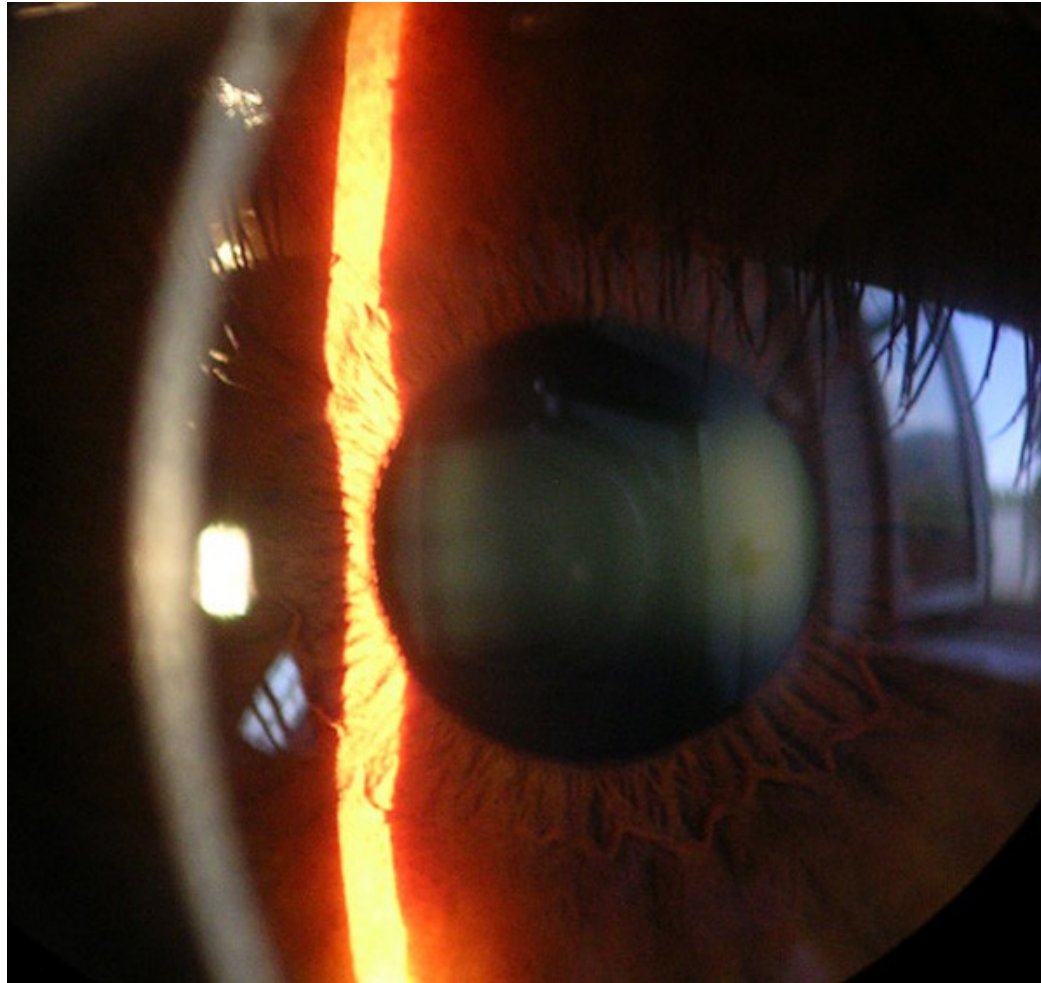


# Cornea

- **Epithelium**
- **Bowman membrane**
- **Stroma**
- **Descemet membrane**
- **Endothelium** – hexogonal cells, one layer

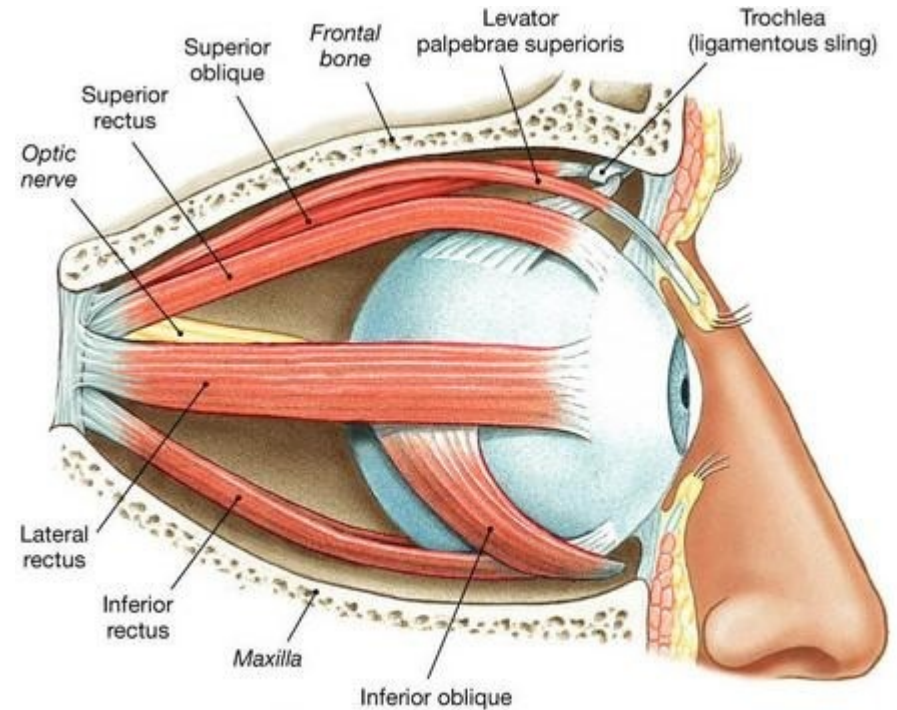
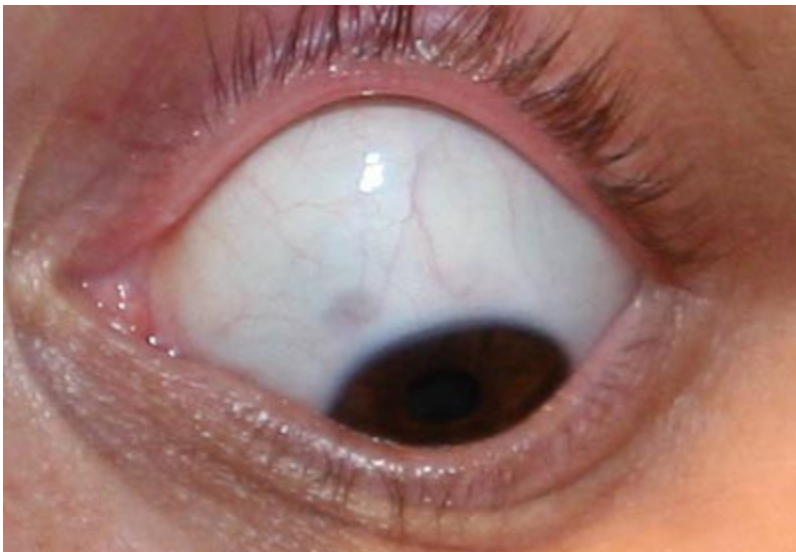


# Cornea

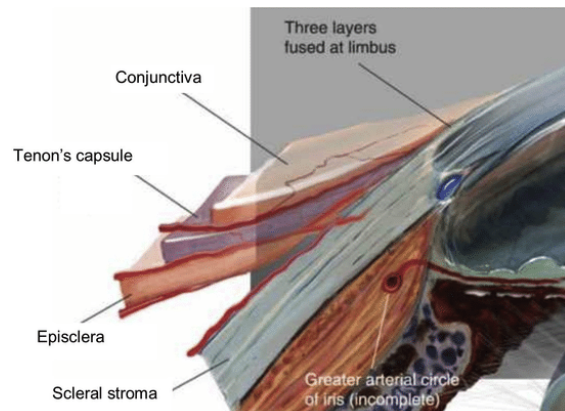


# Sclera

- Episclera

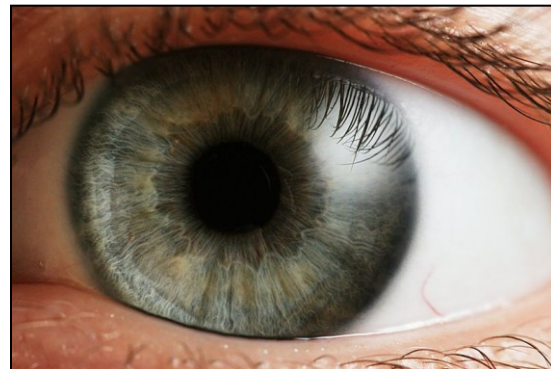


(a) Lateral surface, right eye



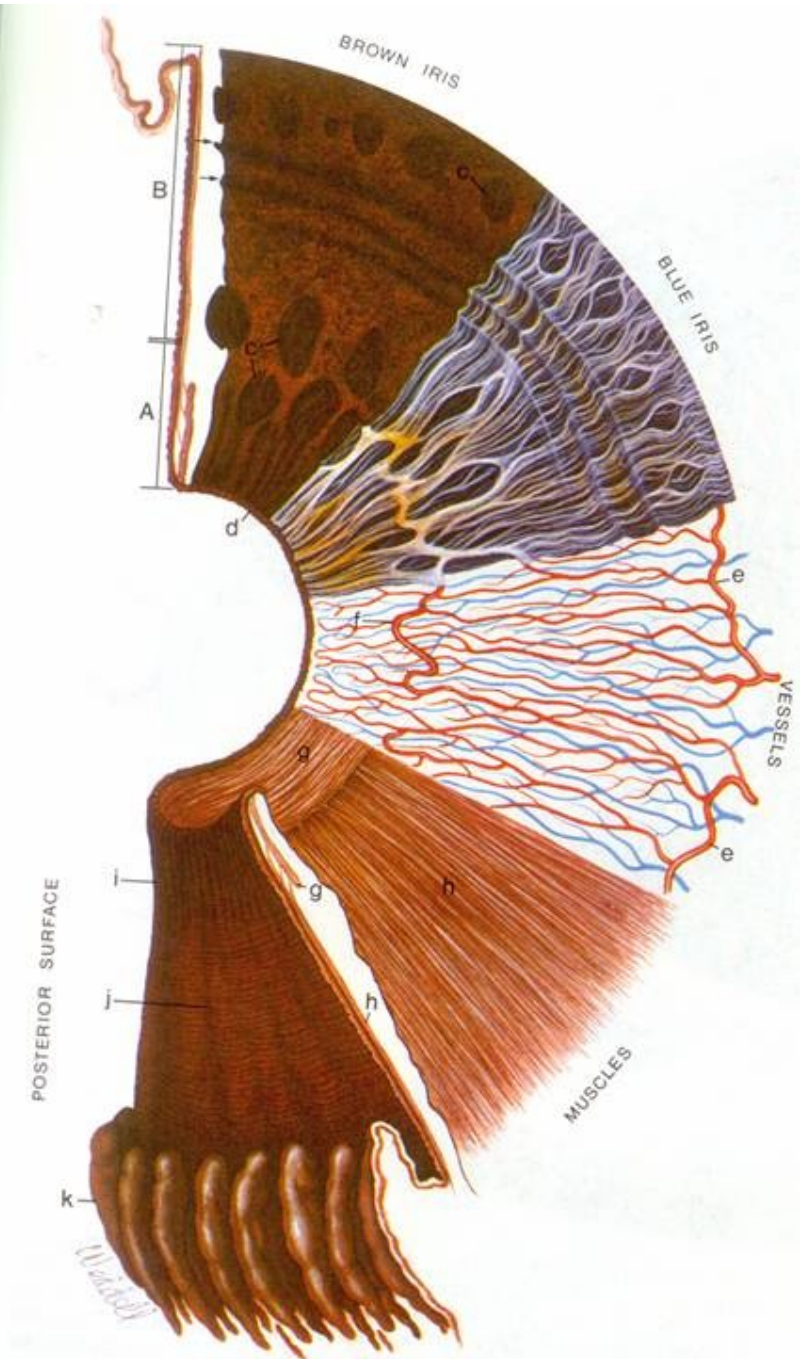
# Iris

- M. sphincter pupillae (parasympaticus – acomodation)
- M. dilatator pupillae (sympaticus)



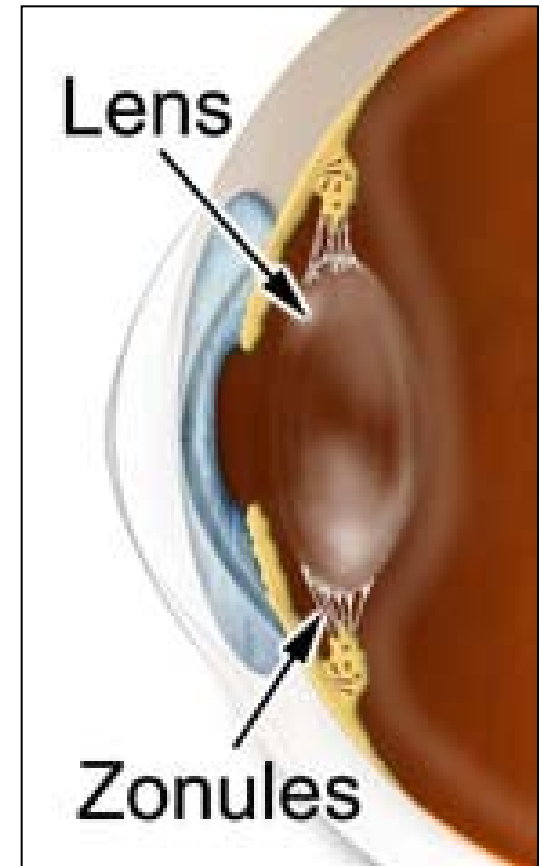


# Iris

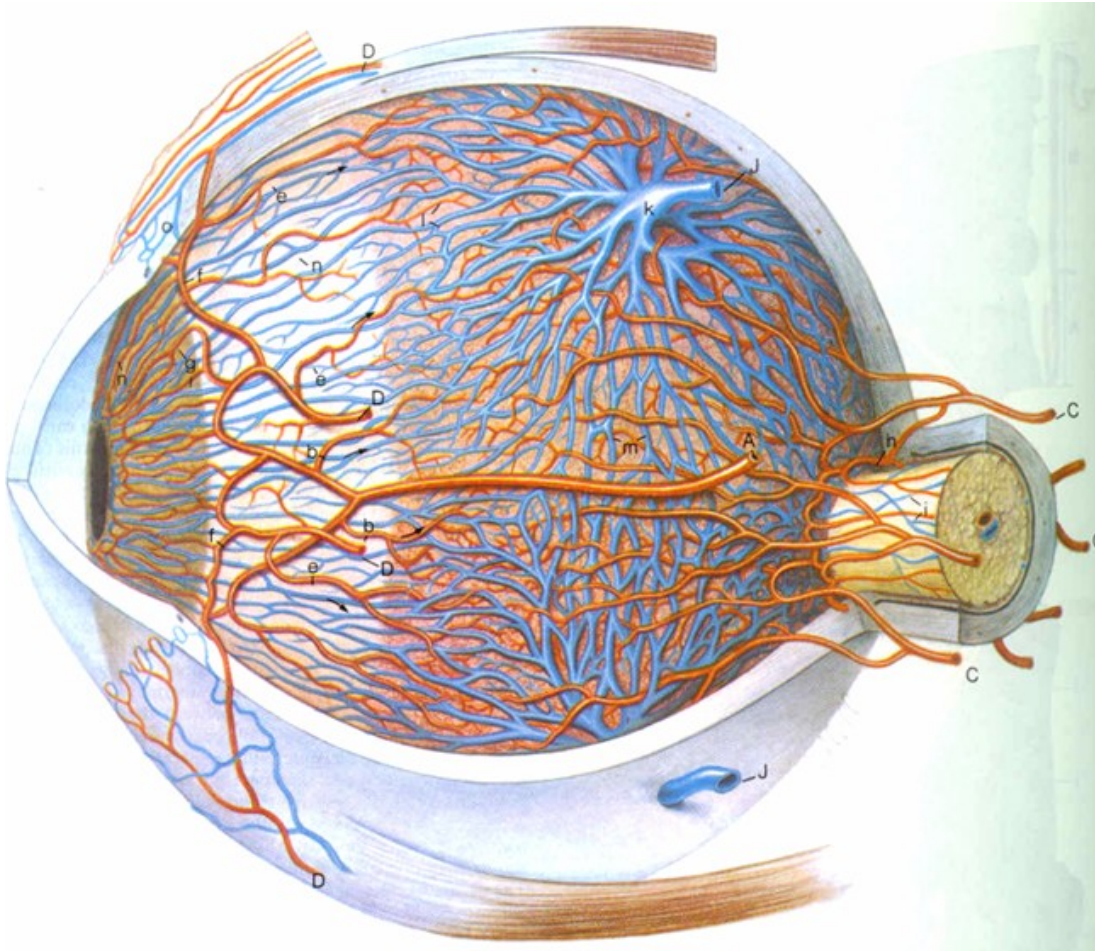


# Ciliary body

- Accomodation
- Production of aqous humor



# Choroid



# Retina

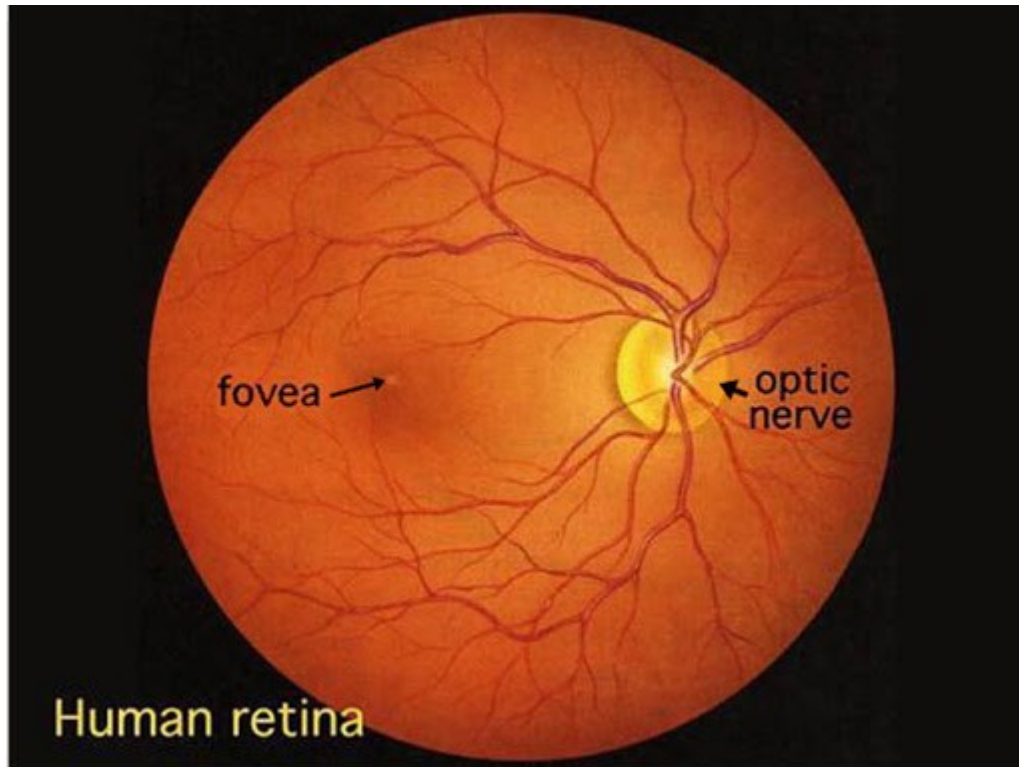
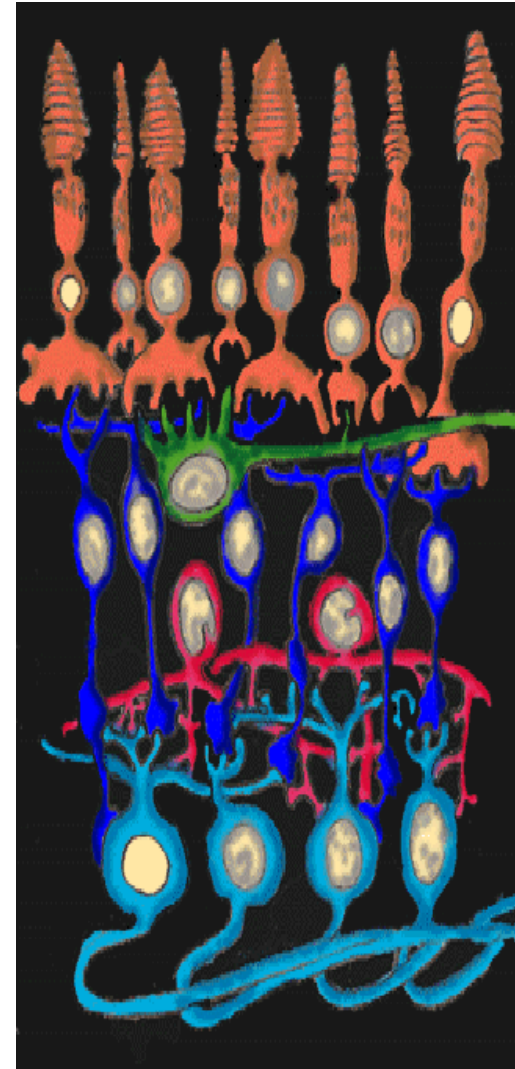
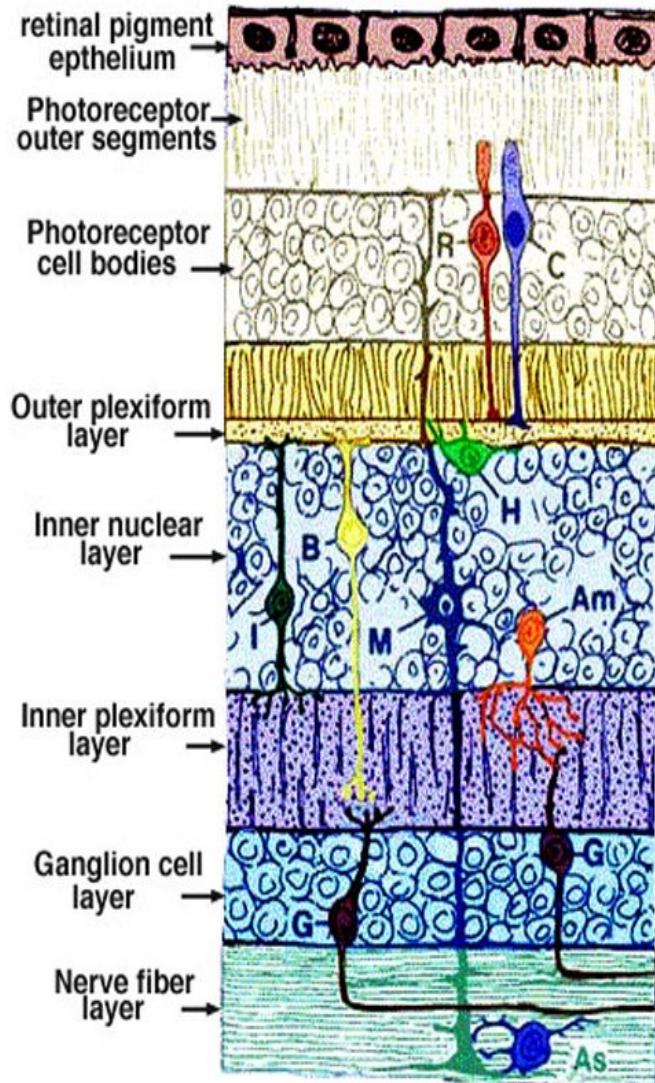
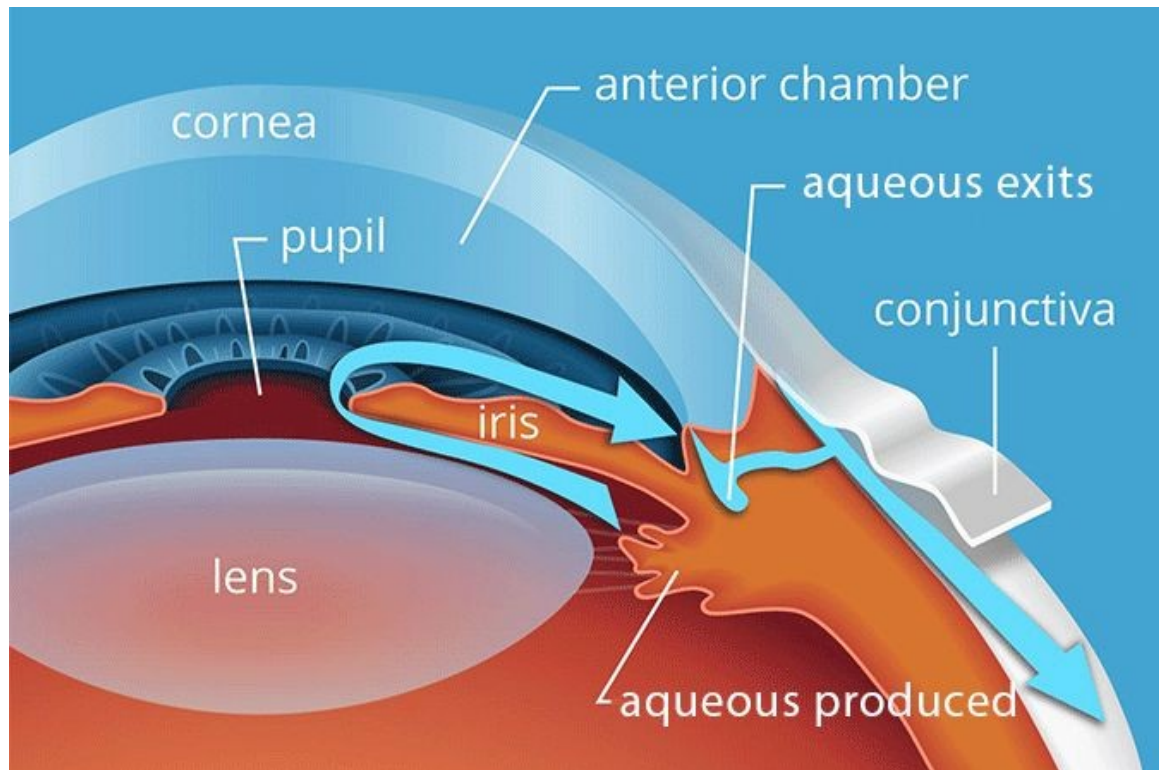


Figure 1. A view of the retina seen through an ophthalmoscope.

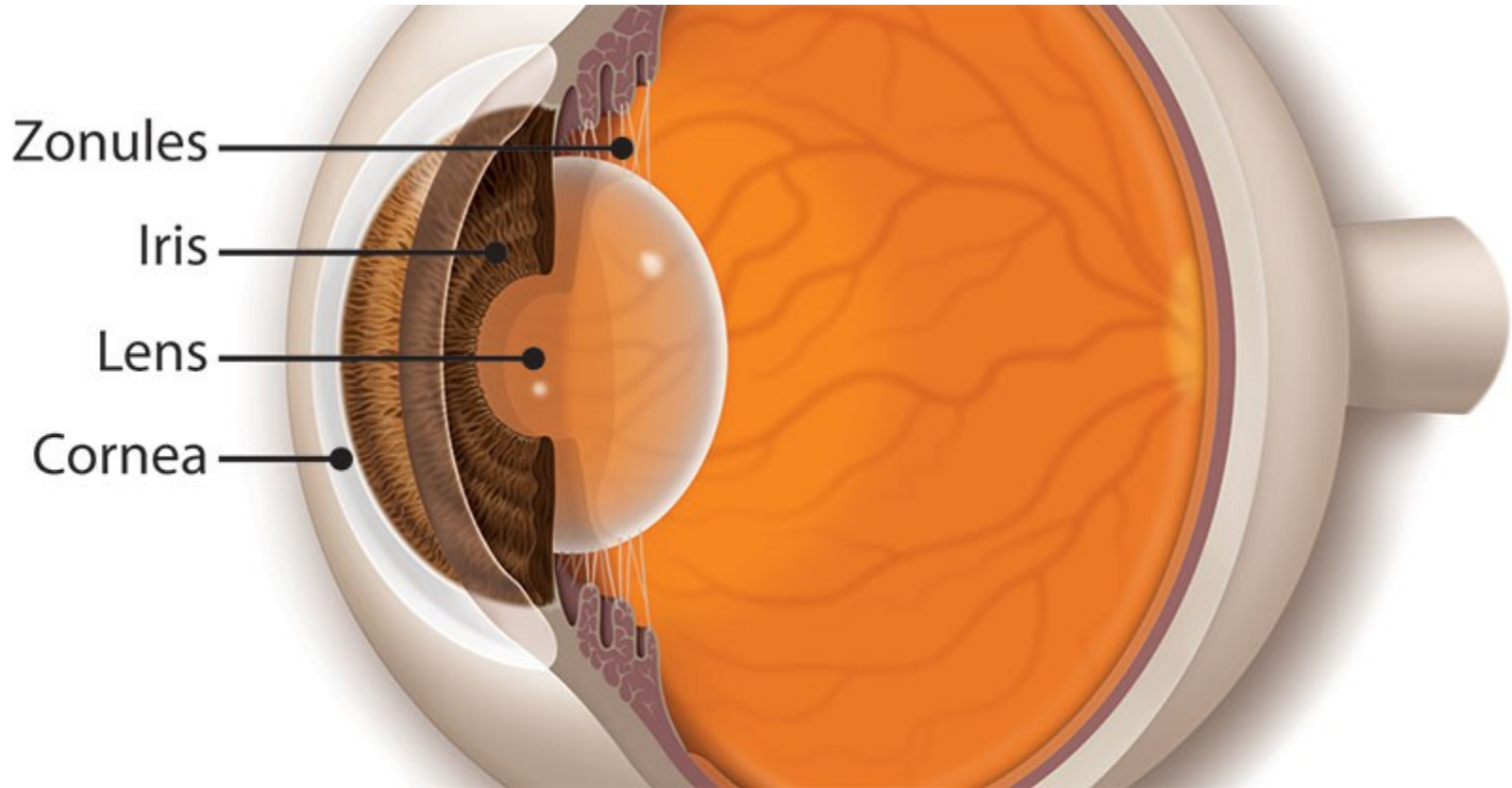
# Retina



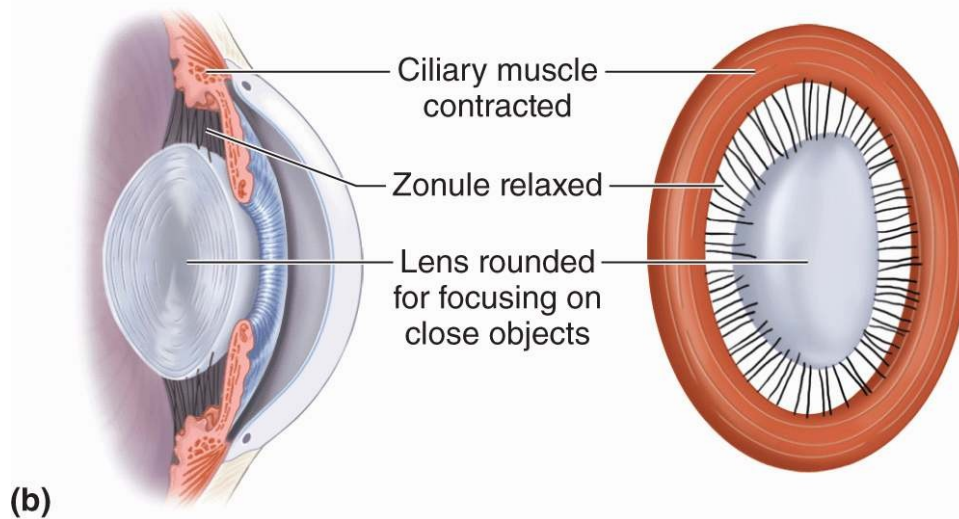
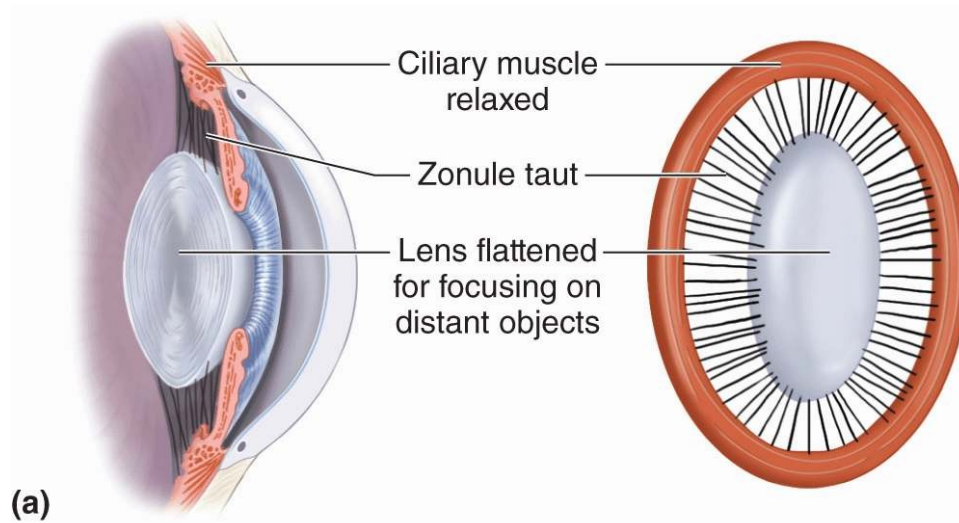
# Anterior and posterior chamber



# Lens (20 D)

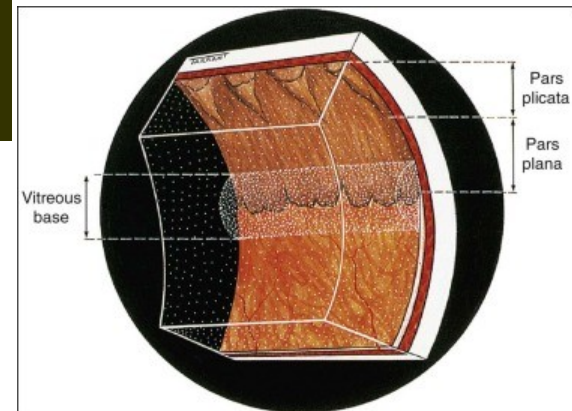
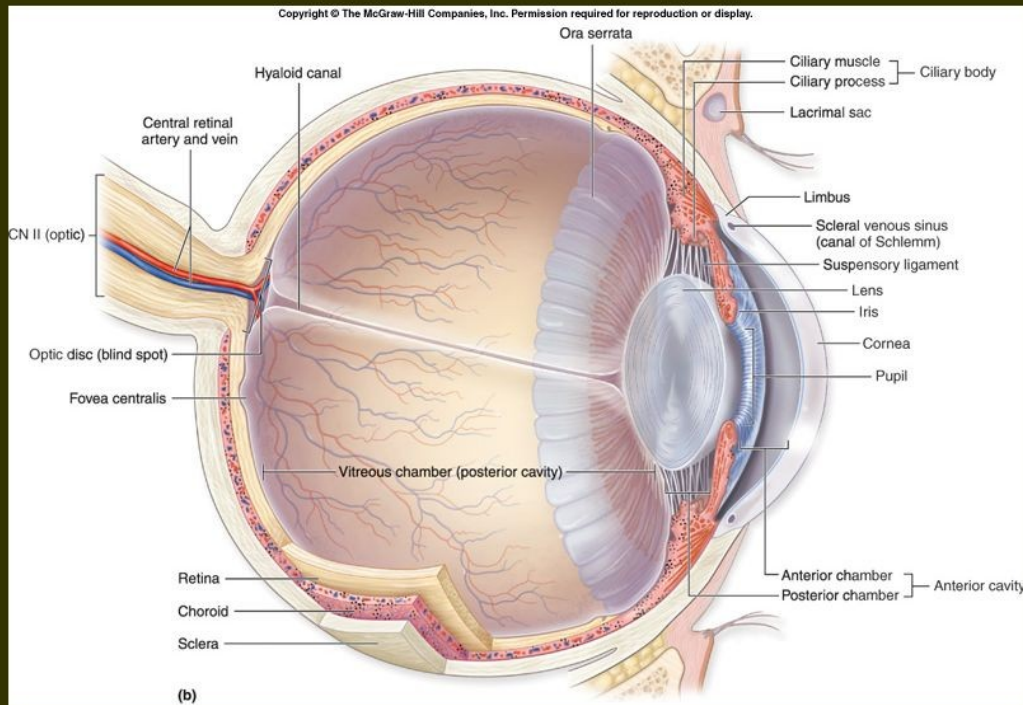


# Lens - accommodation



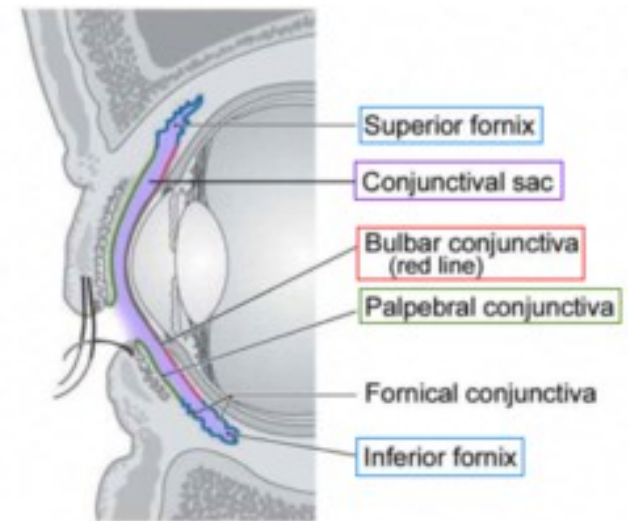
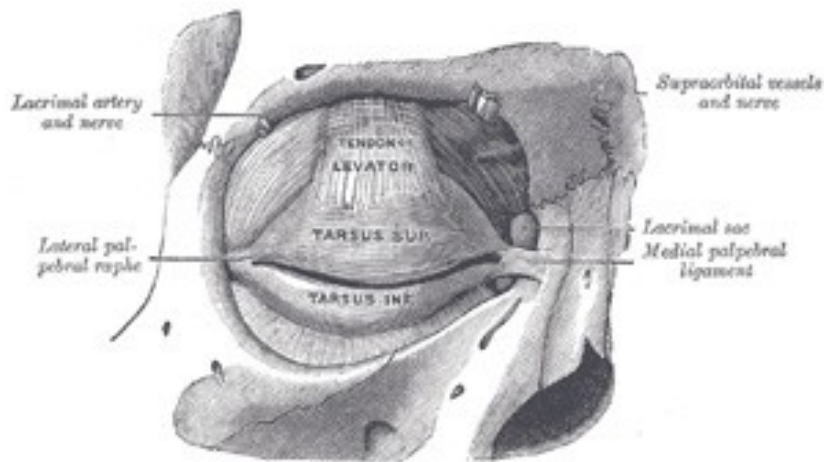


# Corpus vitreum



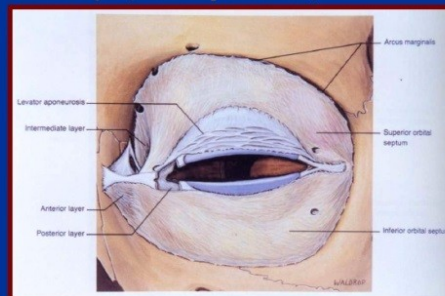
# Eye lids

- Musculus orbicularis oculi – n. facialis



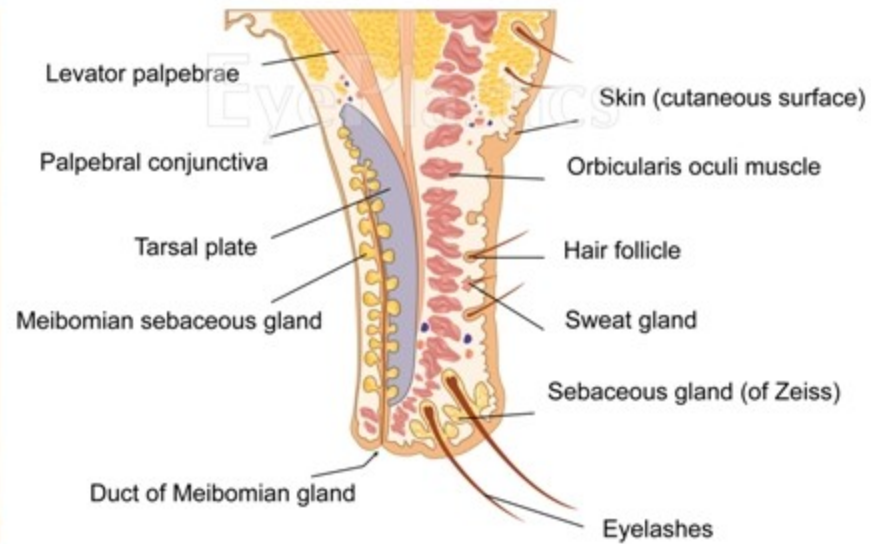
## Eye lid anatomy

Fibrous layer (orbital septum/tarsus)

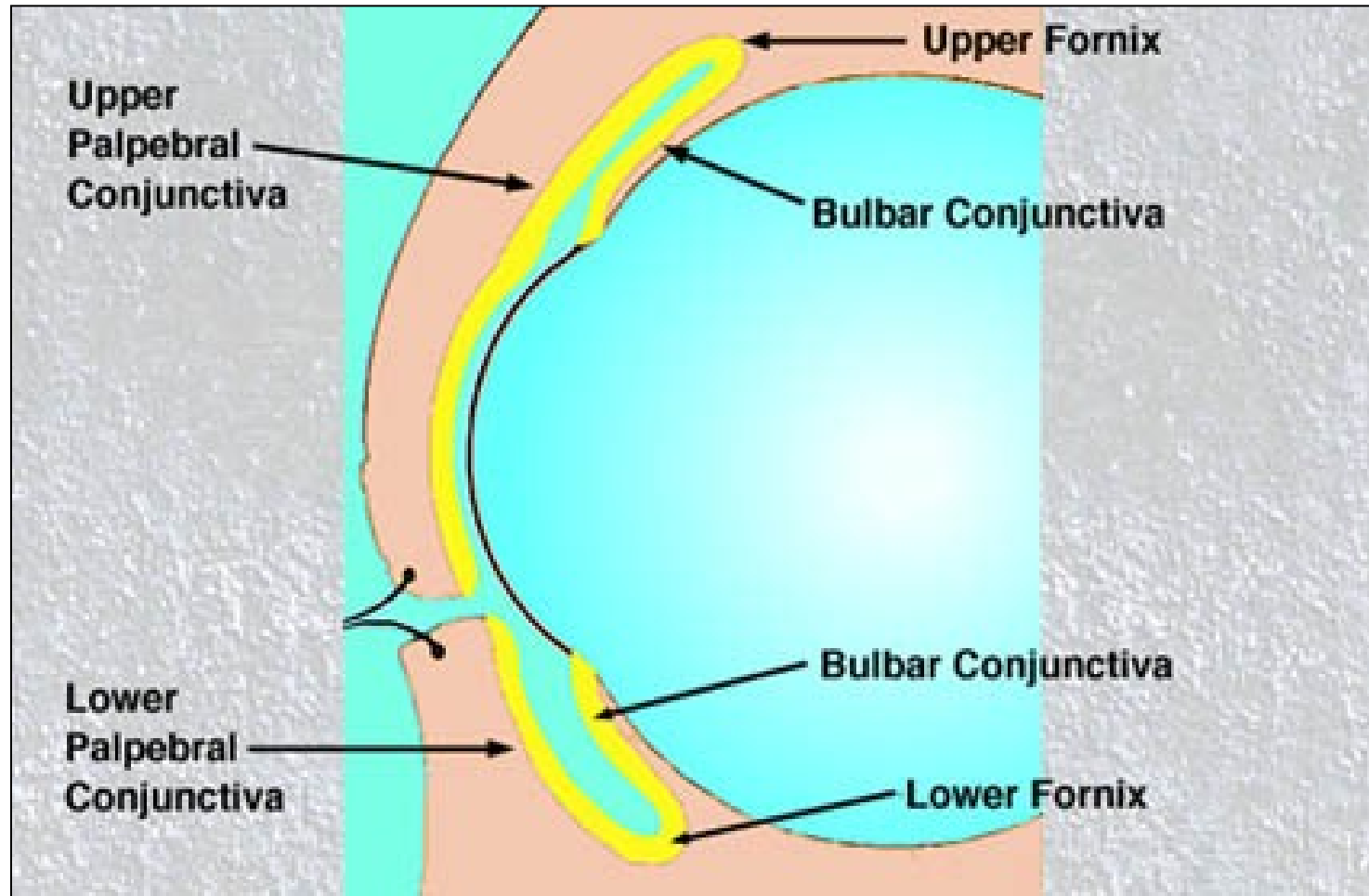


# Eye lids

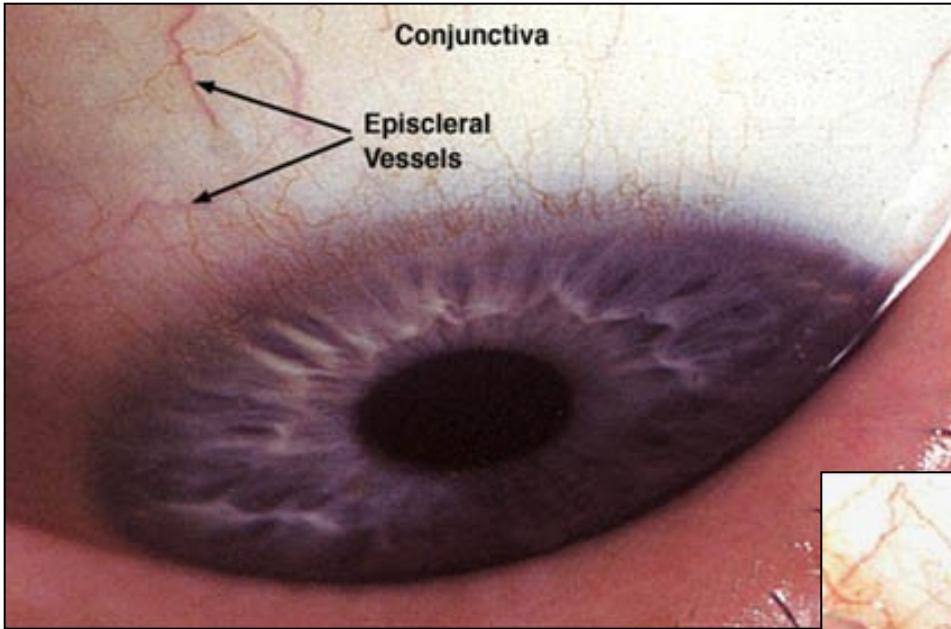
**Section of Eyelid and Eyelid Retracted (Anterior View)**



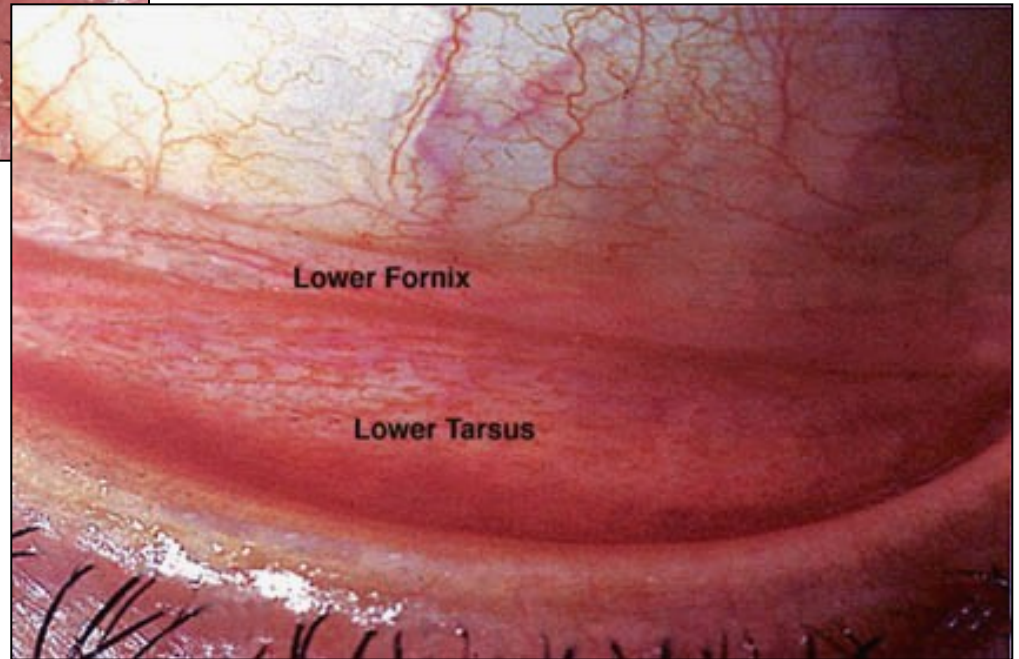
# Conjunctiva



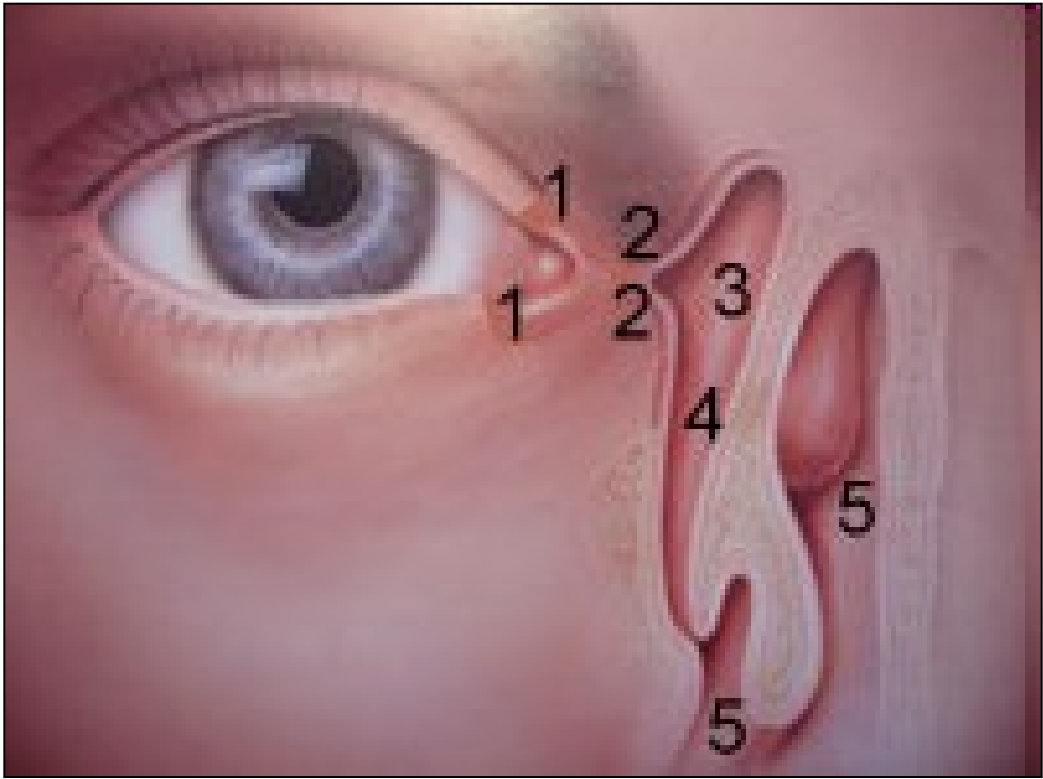
# Conjunctiva



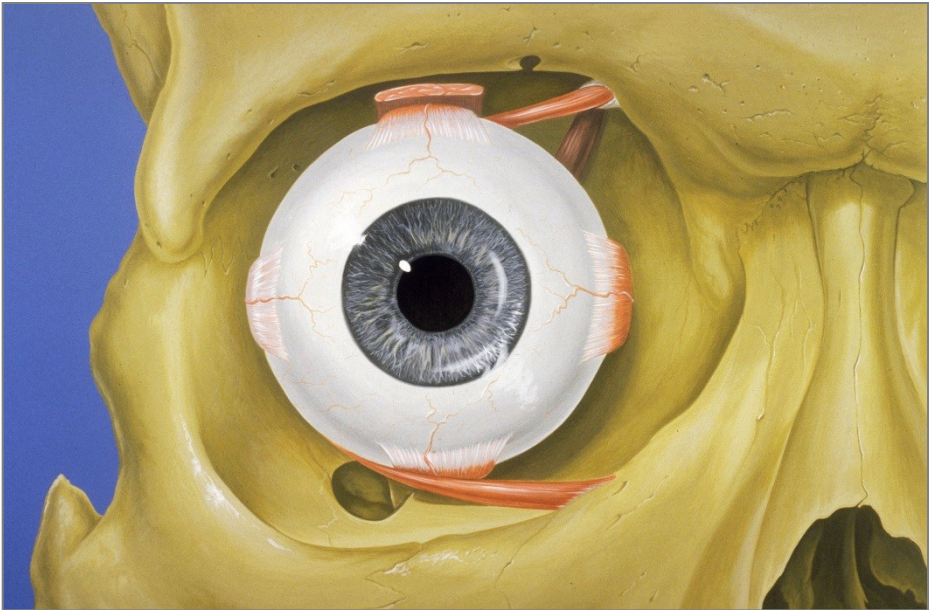
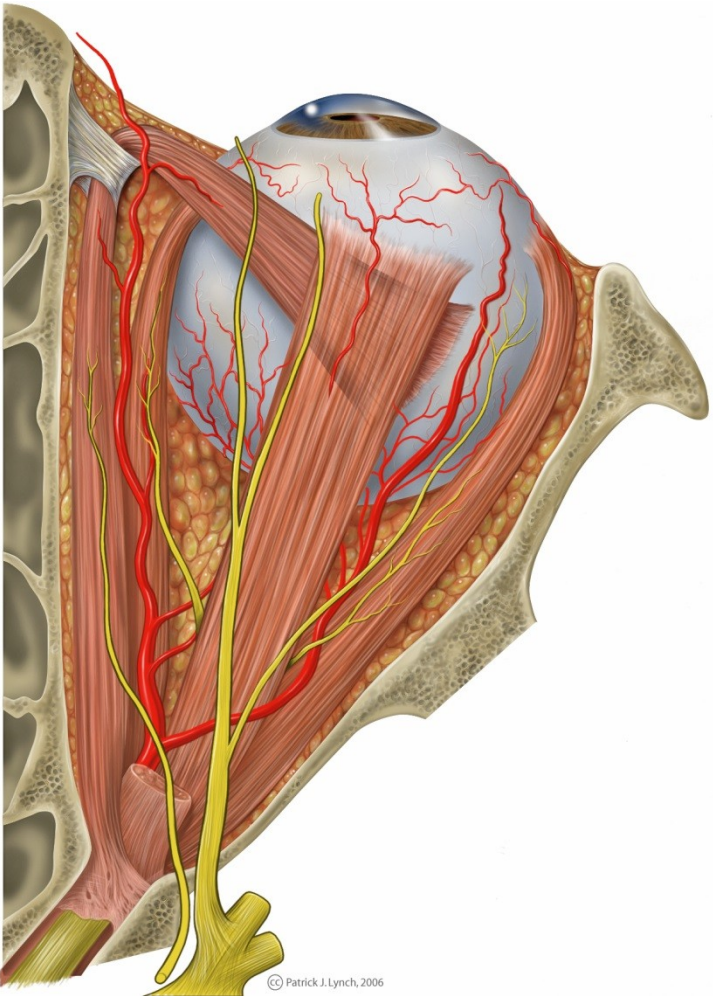
- Goblet cells



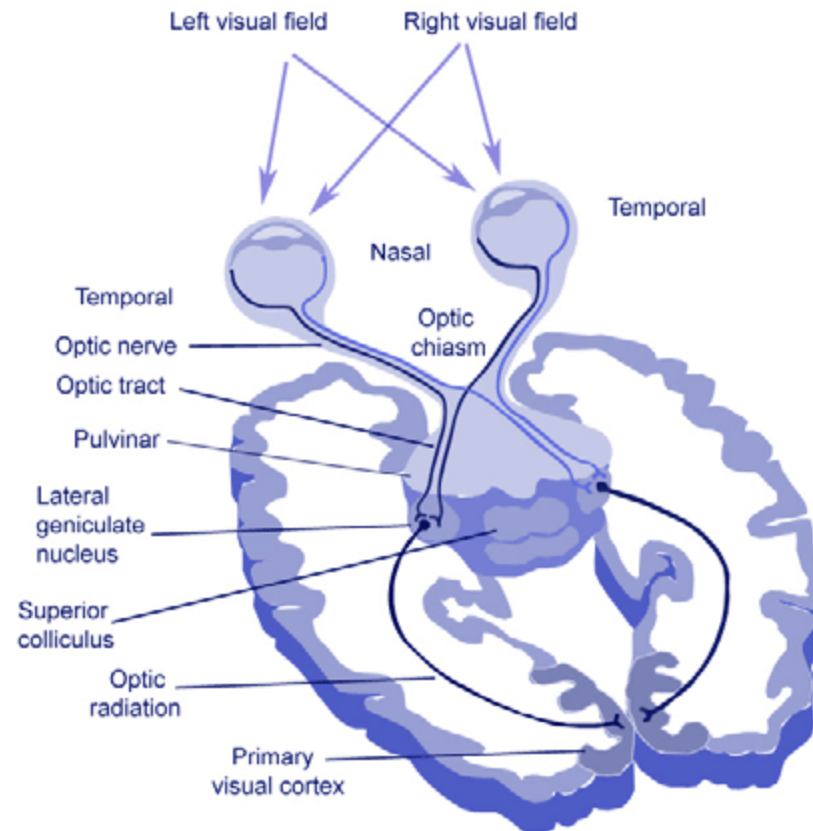
# Lacrimal drainage system



# Oculomotor muscles



# Visual pathway





# Orbit

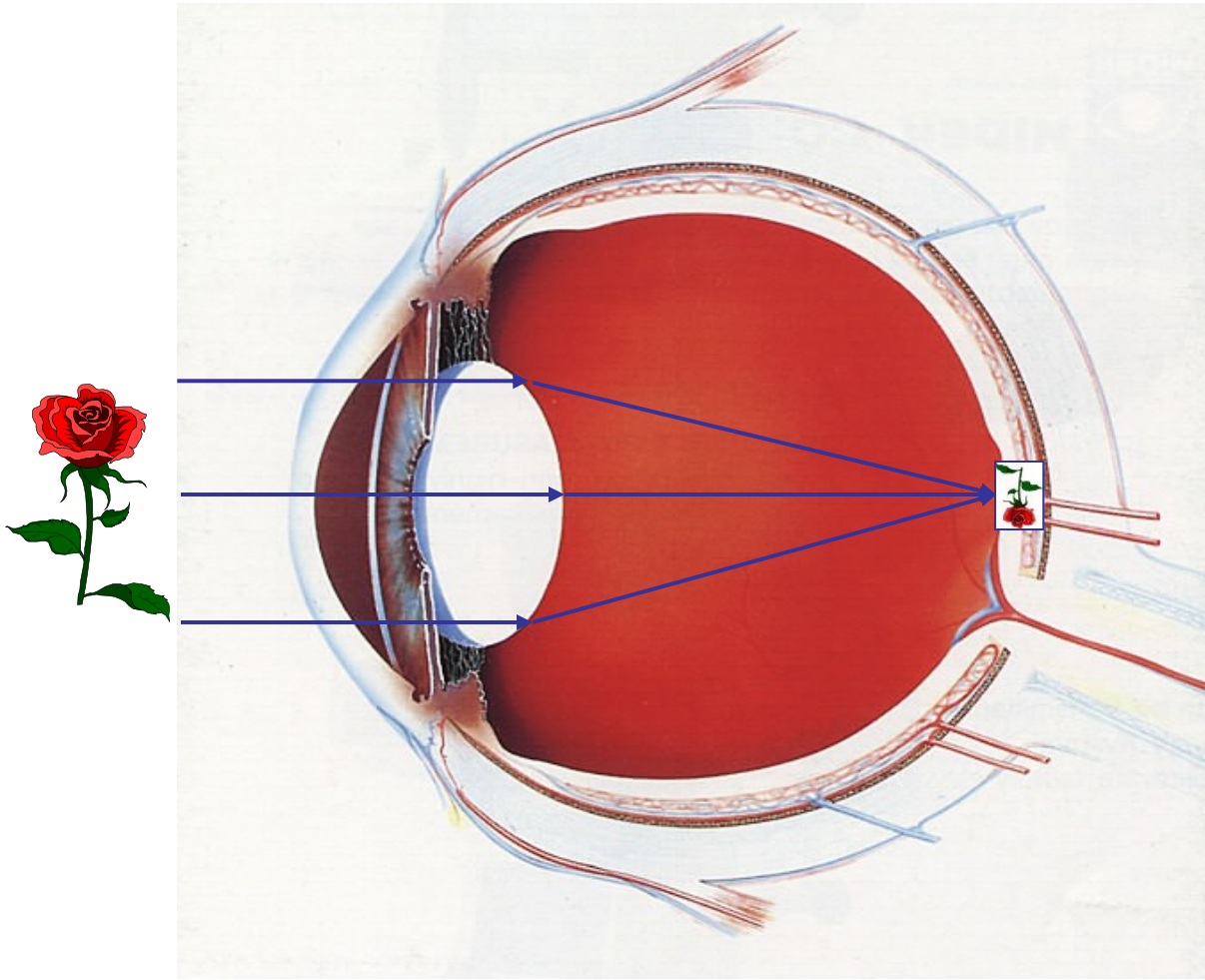


- Os frontale
- Os lacrimale
- Os ethmoidale
- Os zygomaticum
- Maxilla
- Os palatinum
- Os sphenoidale)

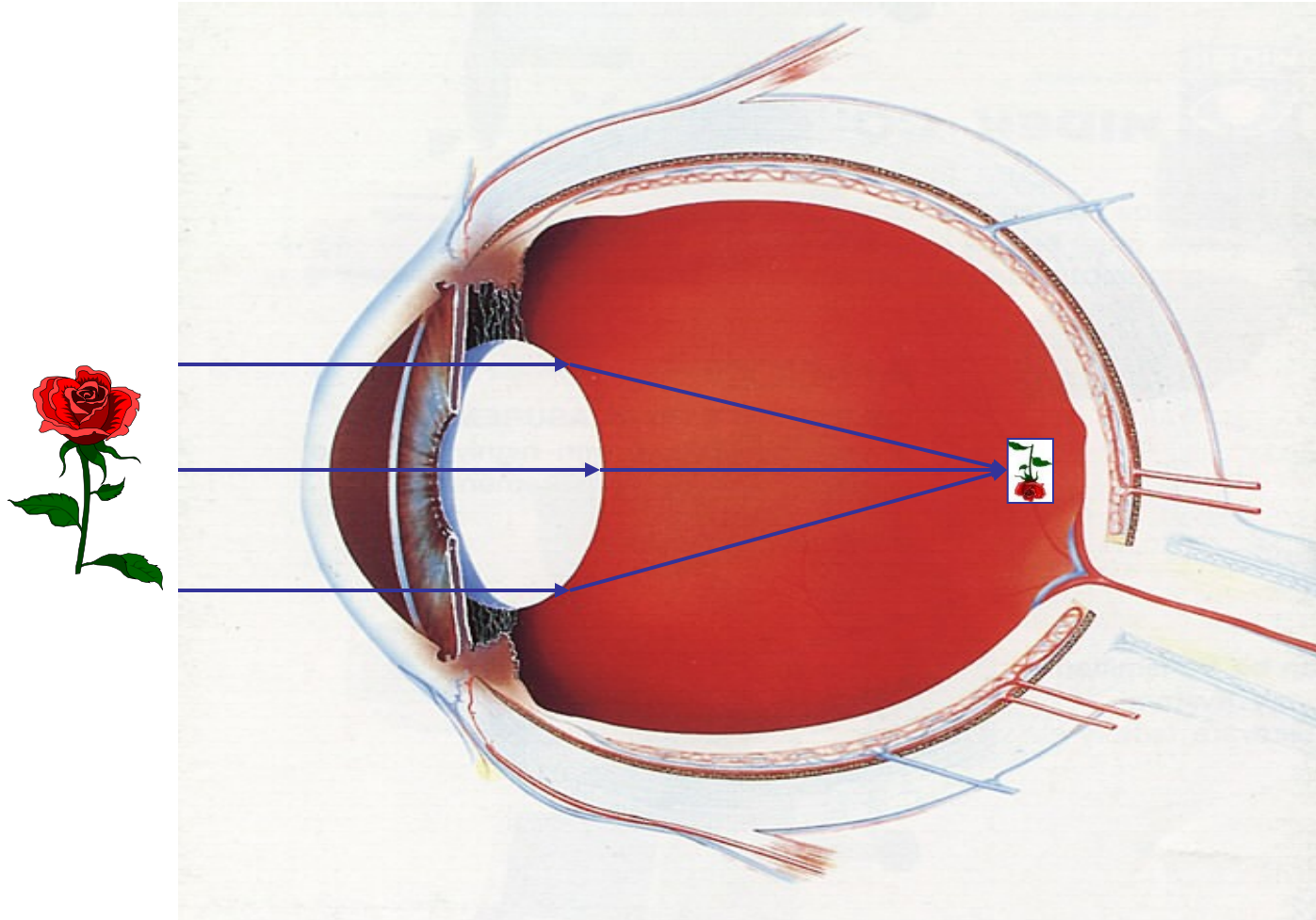
# Orbit

- **canalis opticus:** nervus opticus, arteria ophthalmica
- **Fissura orbitalis superior:** n.III., n.IV., n. VI. (nervus oculomotorius, trochlearis, abducens), I. větev n.V.(n. trigeminus, trojklanný nerv), vena ophthalmica
- **Fissura orbitalis inferior:** vena ophthalmica inferior, nervus infraorbitalis, n. zygomaticus
- **Canalis nasolascimalis**

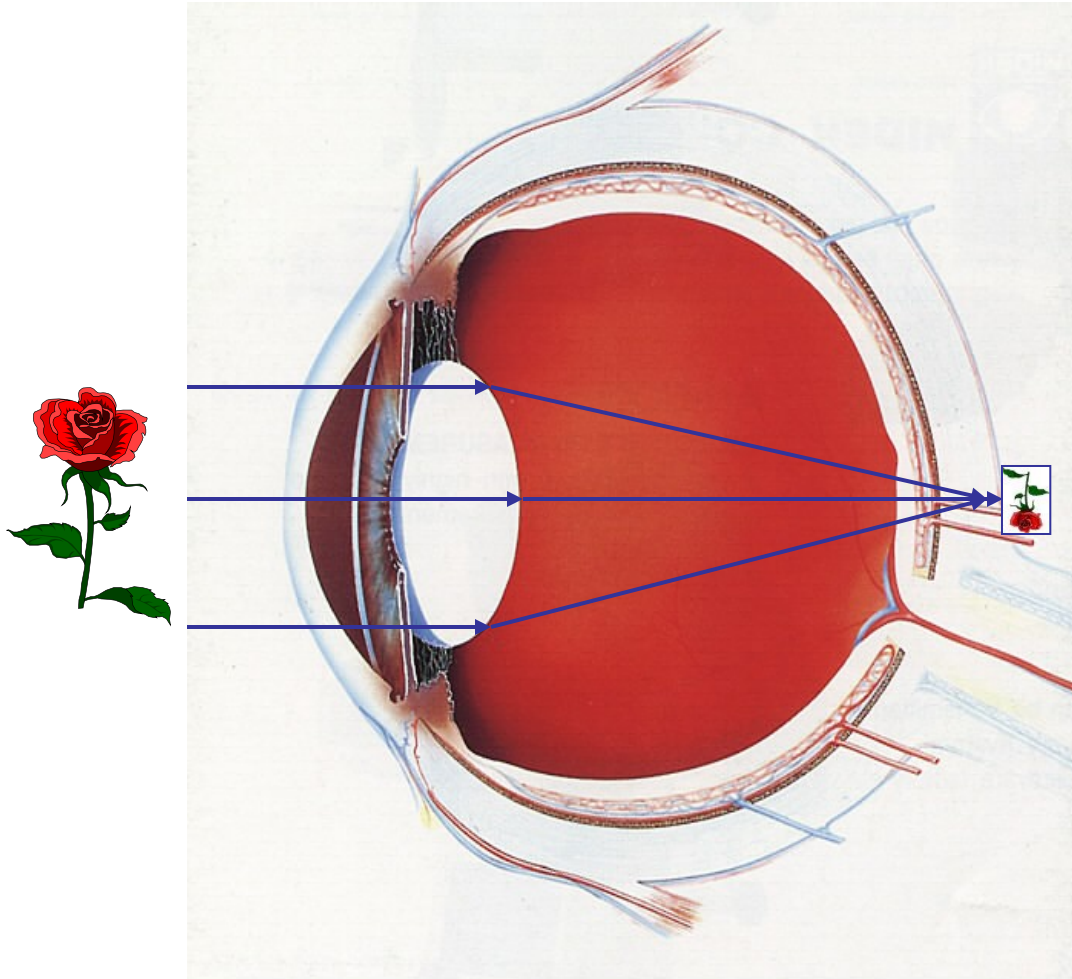
# Emetropia



# Myopia

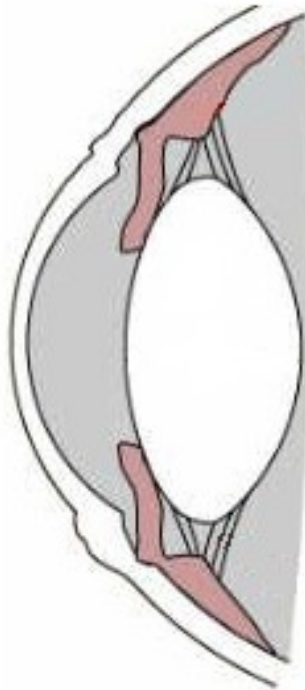


# Hyperopia

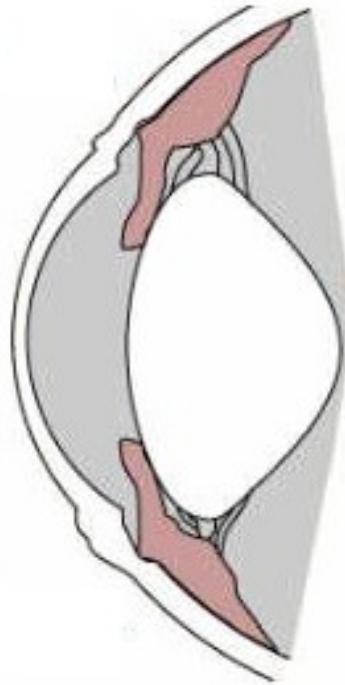


# Presbyopia

do dálky



do blízka



**Děkuji za pozornost!**

