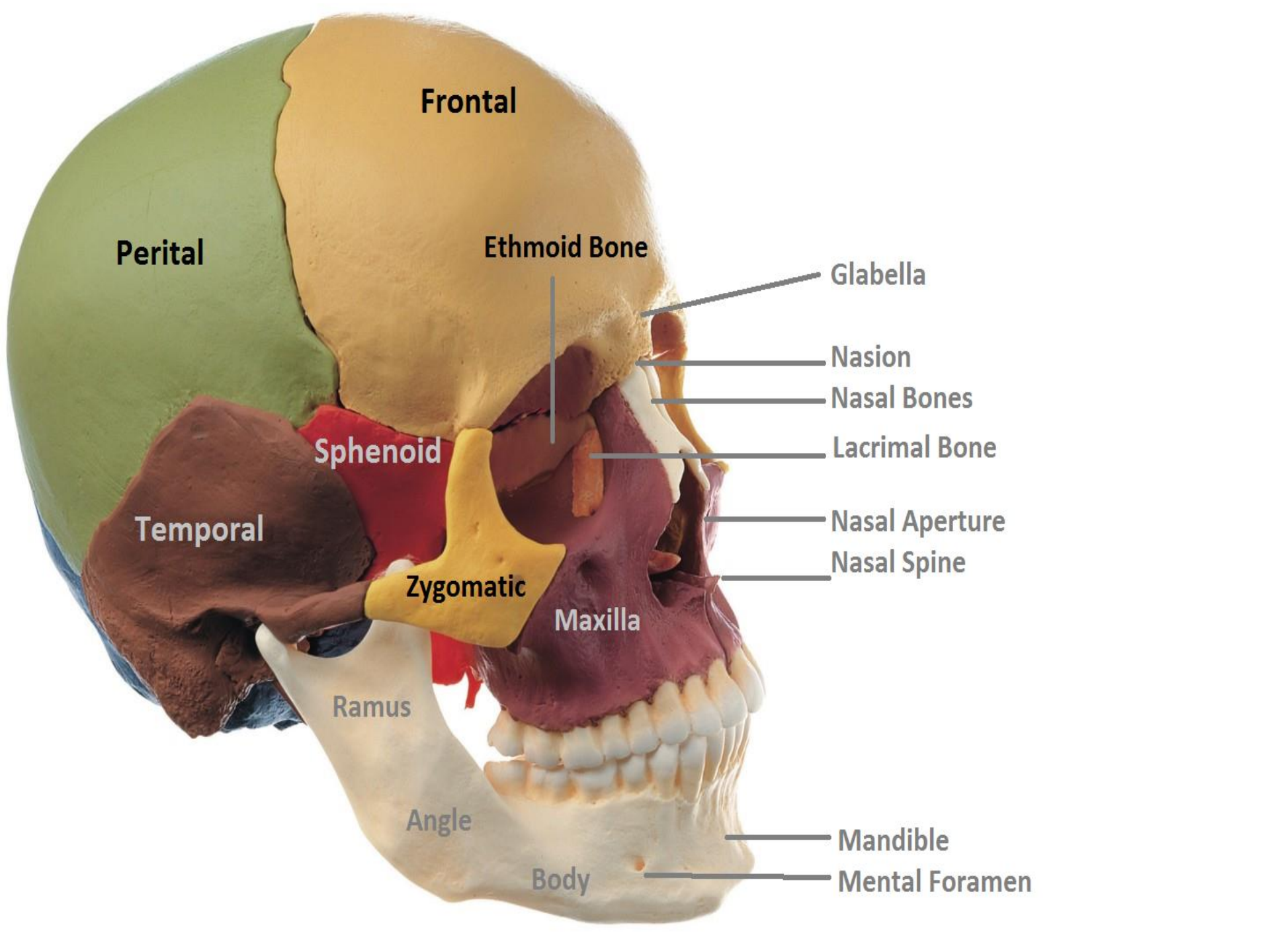


بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



**Frontal**

**Parietal**

**Ethmoid Bone**

**Glabella**

**Nasion**

**Nasal Bones**

**Lacrimal Bone**

**Temporal**

**Sphenoid**

**Nasal Aperture**

**Nasal Spine**

**Zygomatic**

**Maxilla**

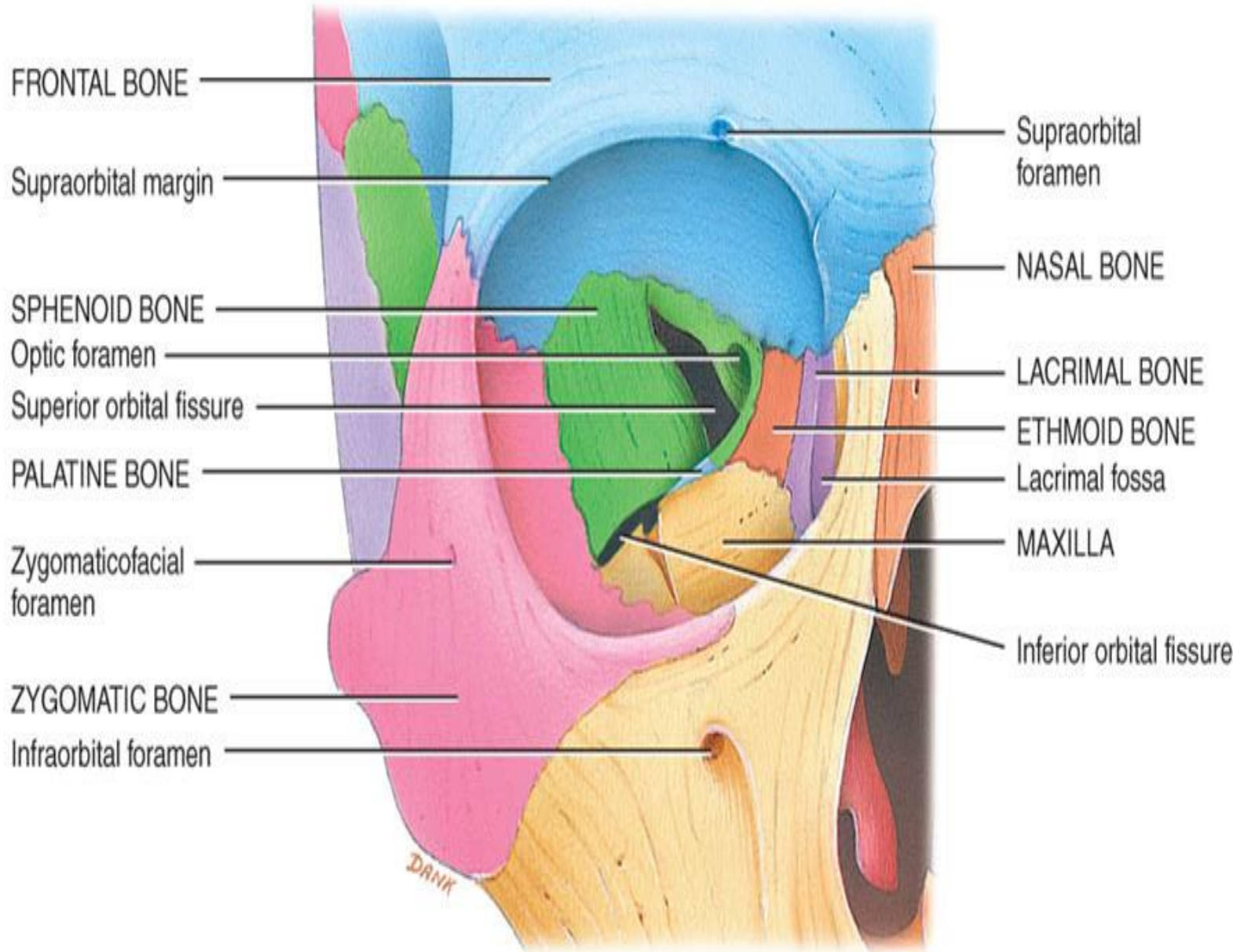
**Ramus**

**Angle**

**Mandible**

**Body**

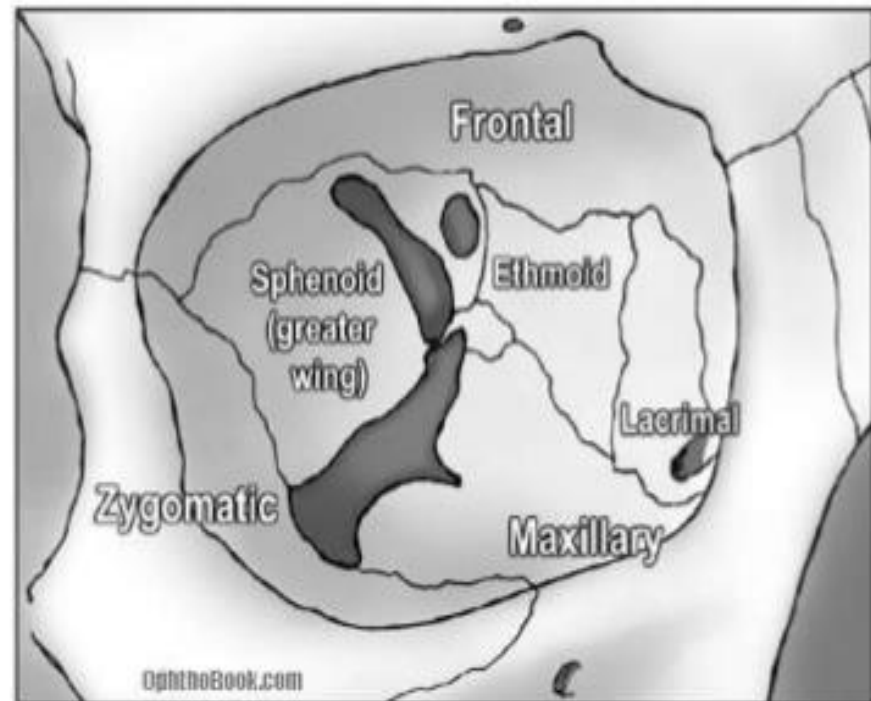
**Mental Foramen**

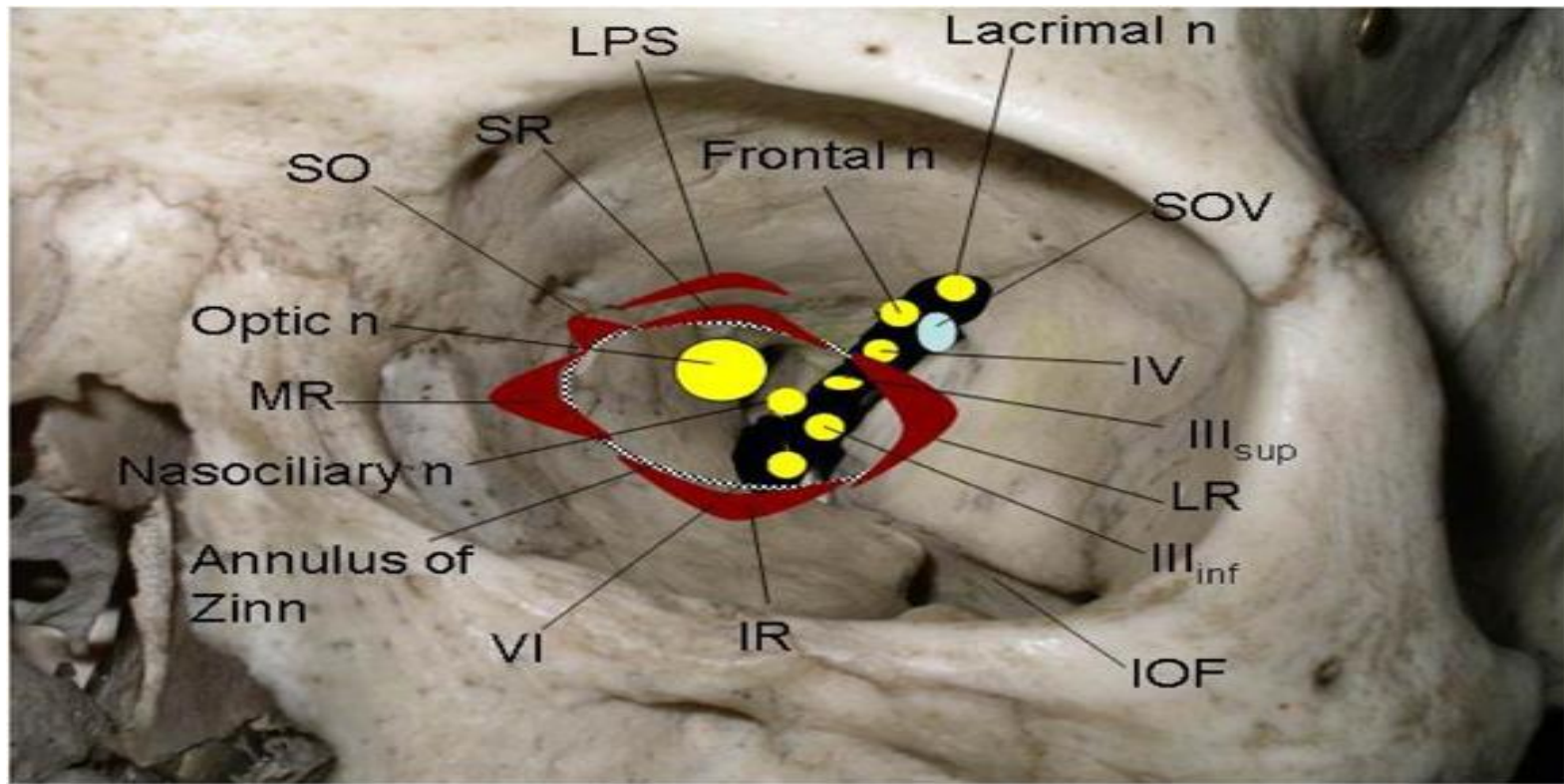


Anterior view showing the bones of the right orbit

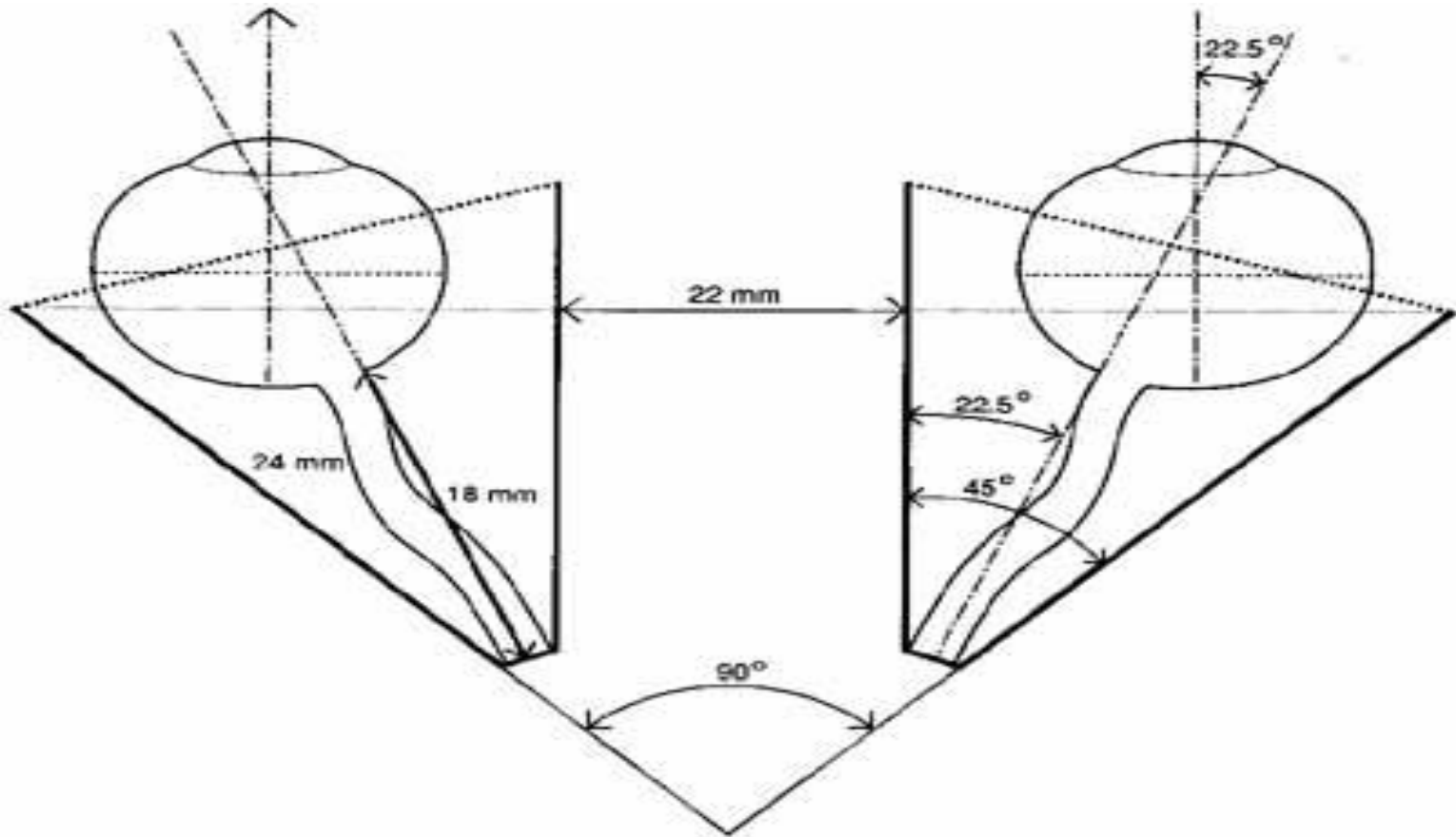
1. **Roof:** frontal bone, sphenoid bone
2. **Lateral Wall:** sphenoid bone, zygomatic bone
3. **Floor:** maxillary bone, zygomatic bone
4. **Medial Wall:** ethmoid, lacrimal bone, frontal bone, maxillary bone

## Orbital Walls

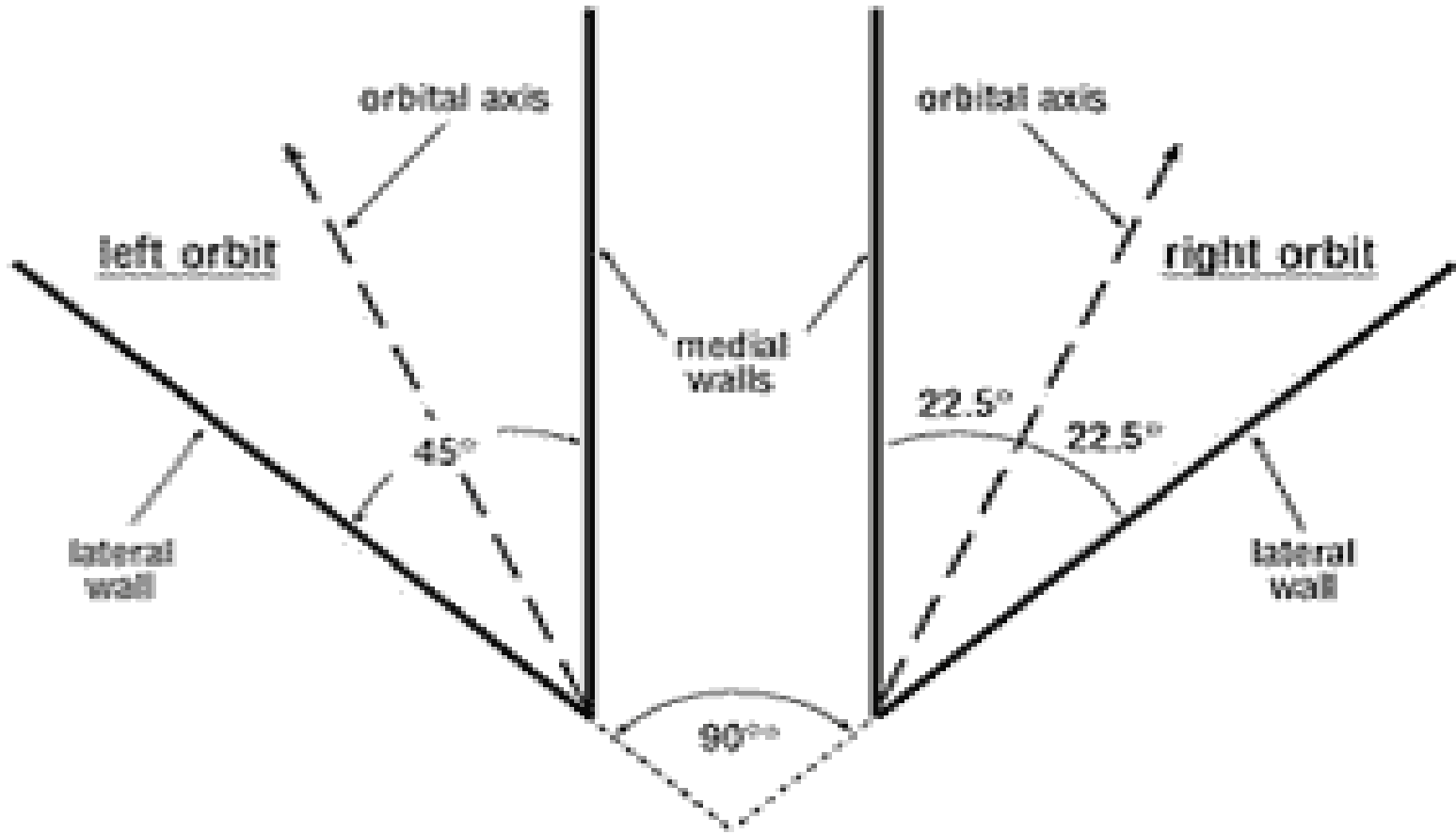


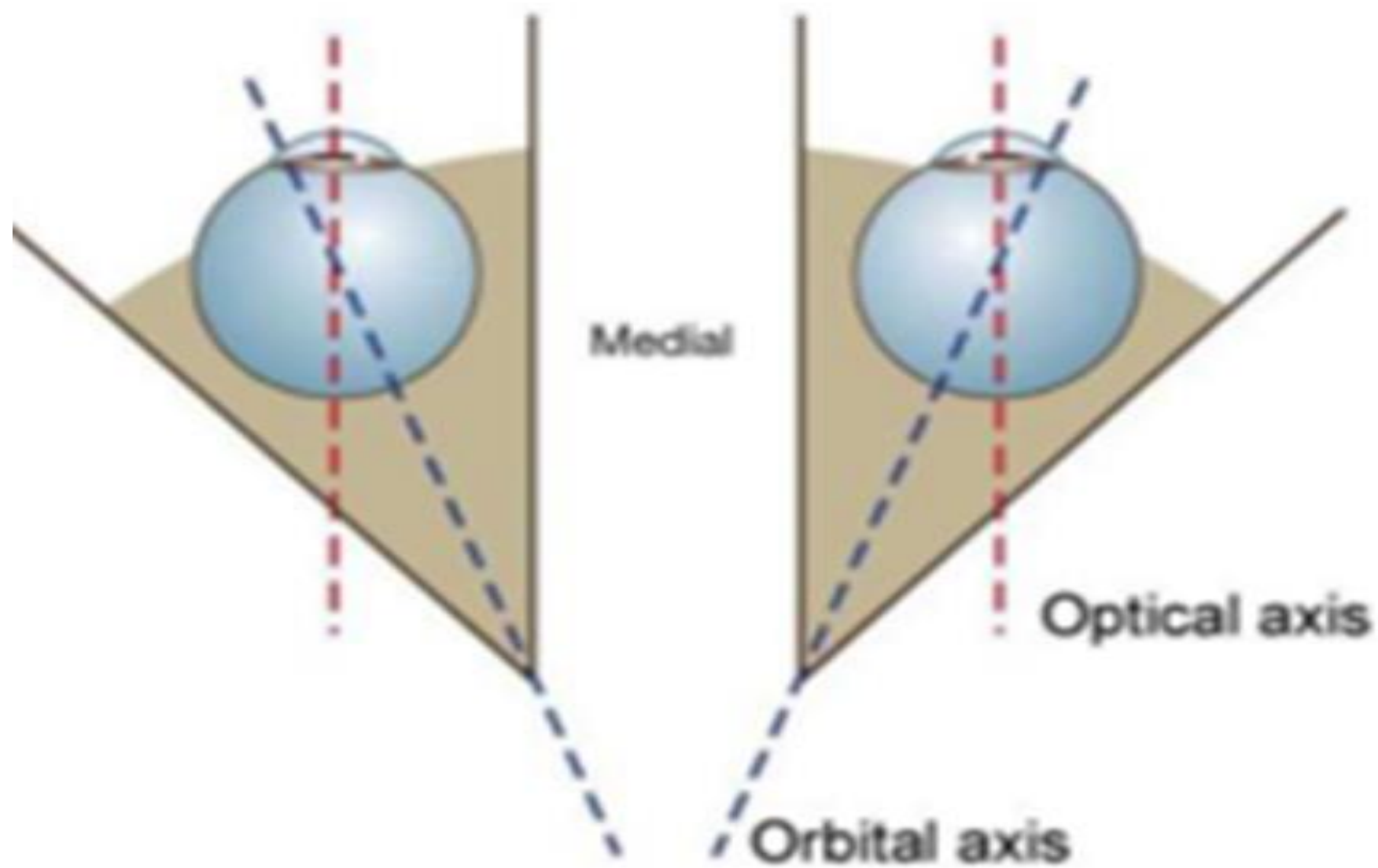


**Key: LPS, levator muscle; SR, superior rectus; LR, lateral rectus; IR, inferior rectus; MR, medial rectus; SO, superior oblique; SOV, superior ophthalmic vein; III<sub>sup</sub>, superior division of oculomotor nerve; III<sub>inf</sub>, inferior division of oculomotor nerve; IOF, inferior orbital fissure.**

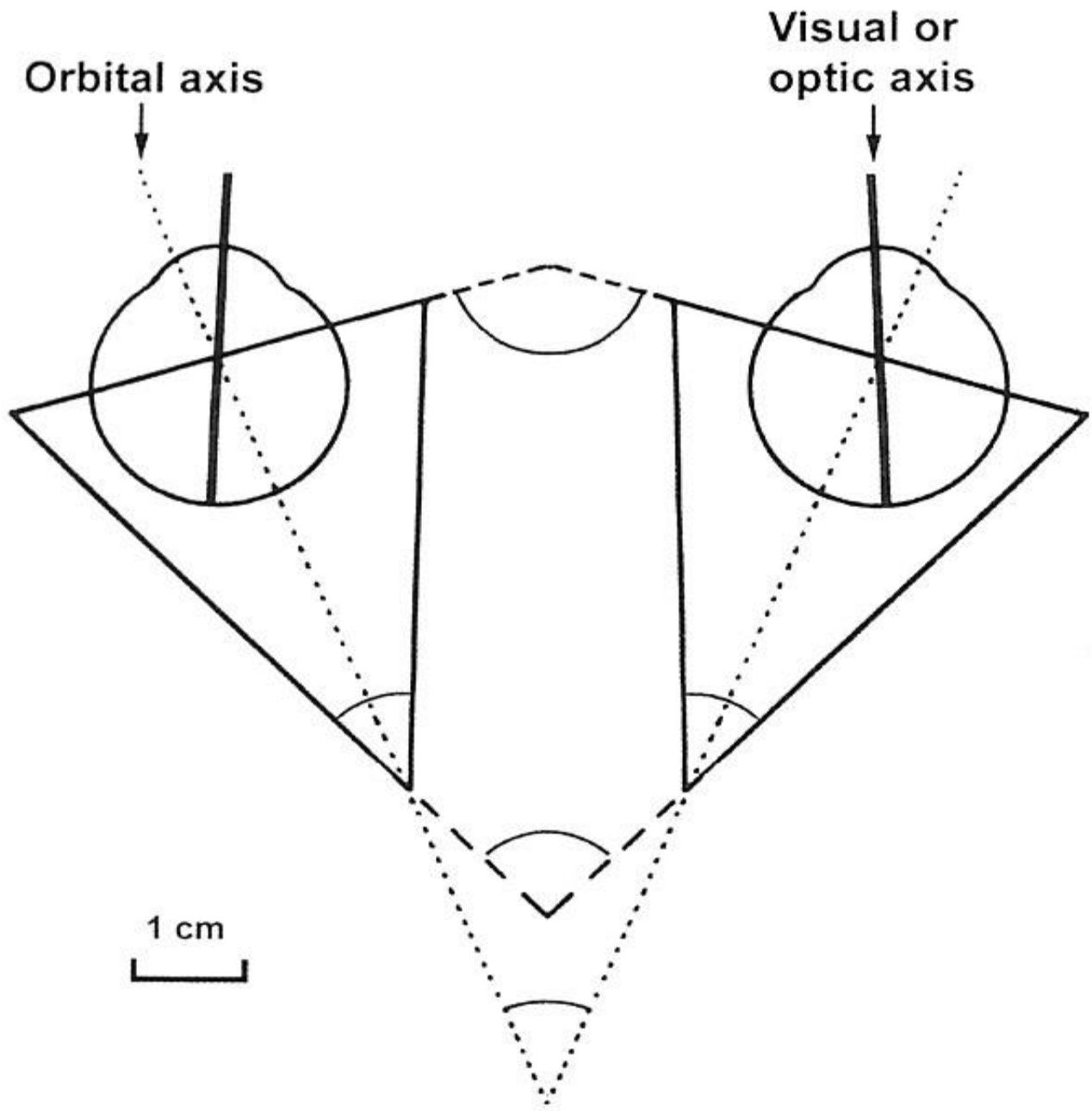


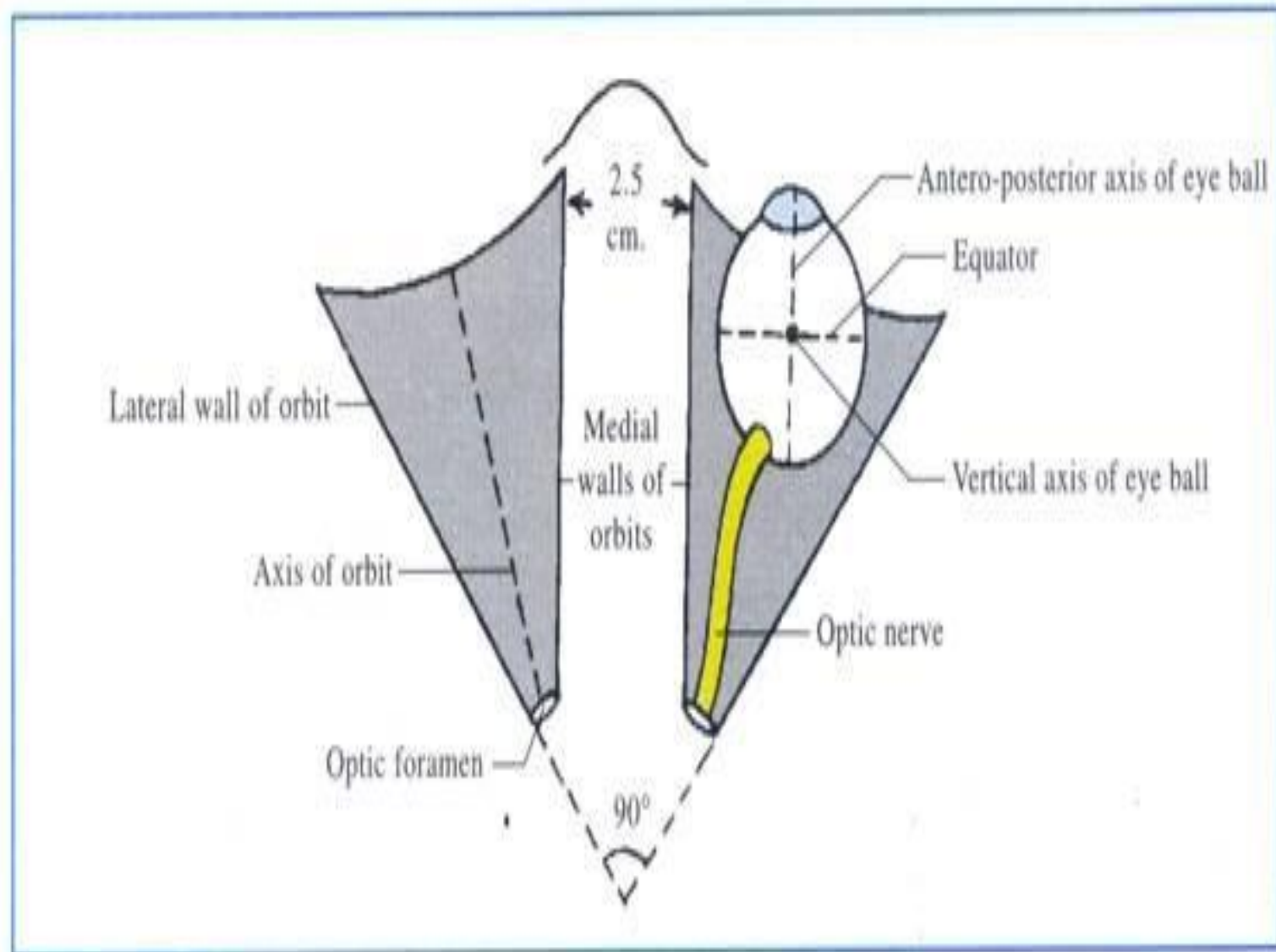
- **Diagram of horizontal section through orbits. Medial walls are roughly parallel and lateral walls diverge 45 degrees. Thus, the orbital axis diverges 22.5 degrees away from midline.**



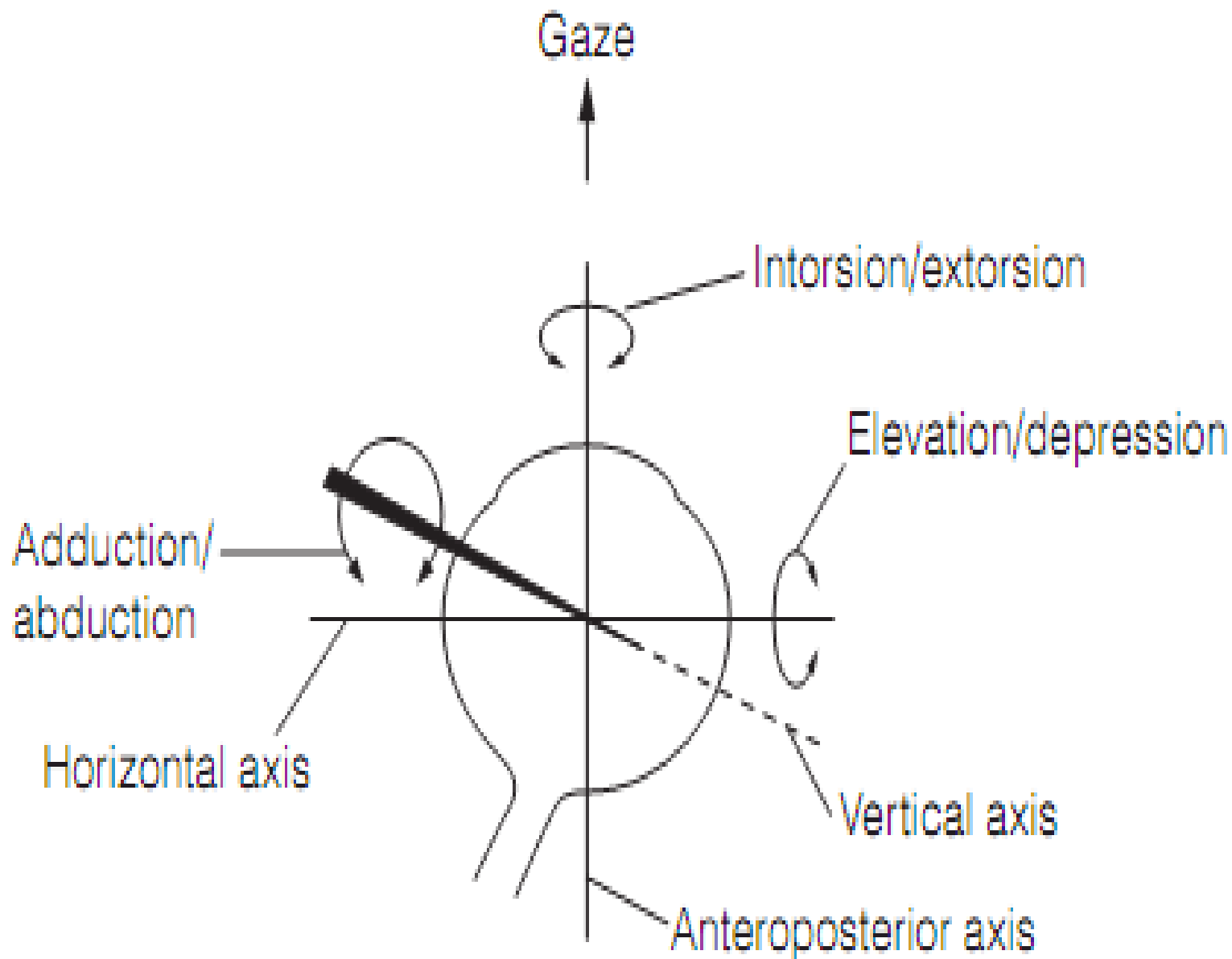


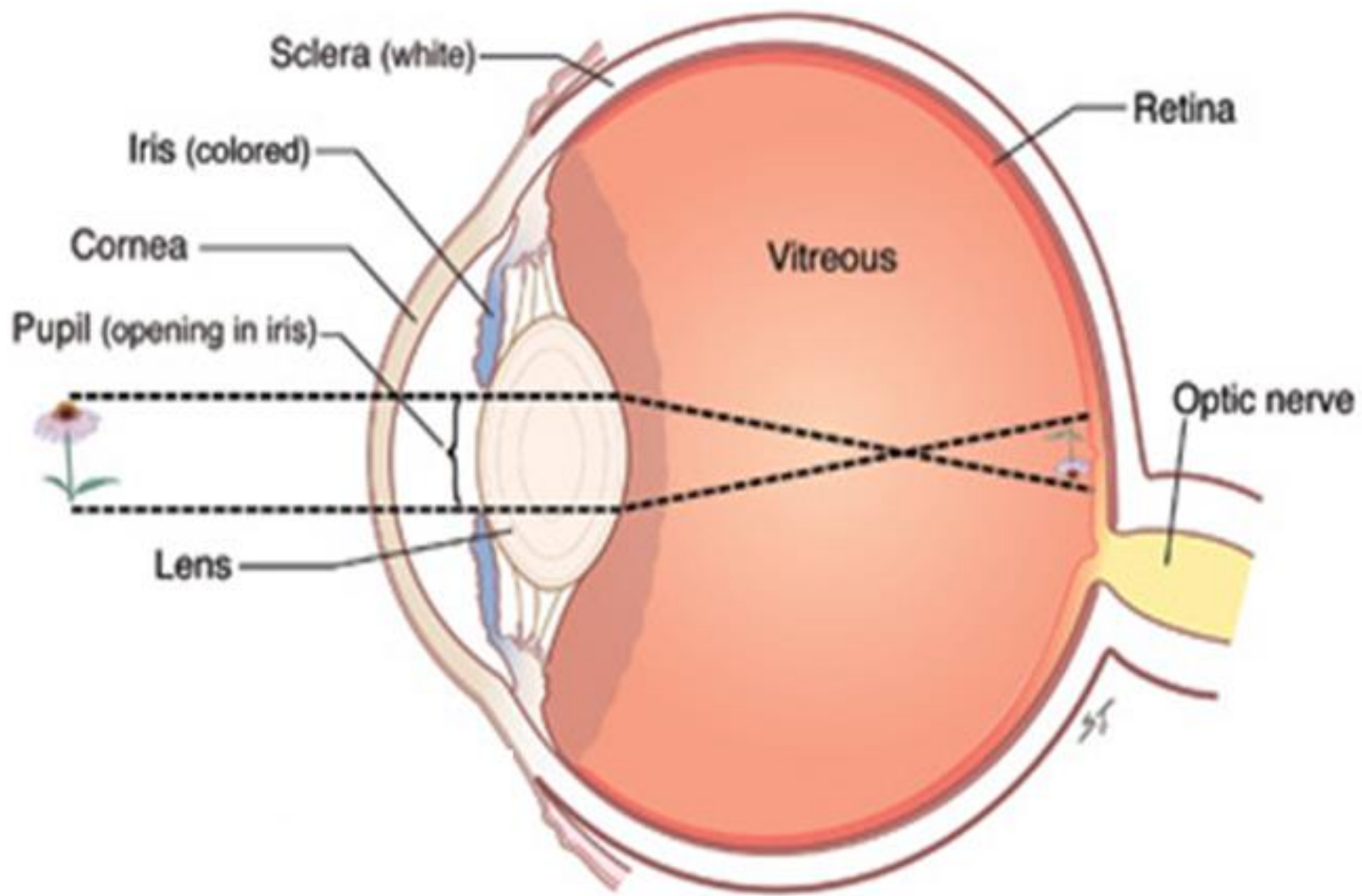


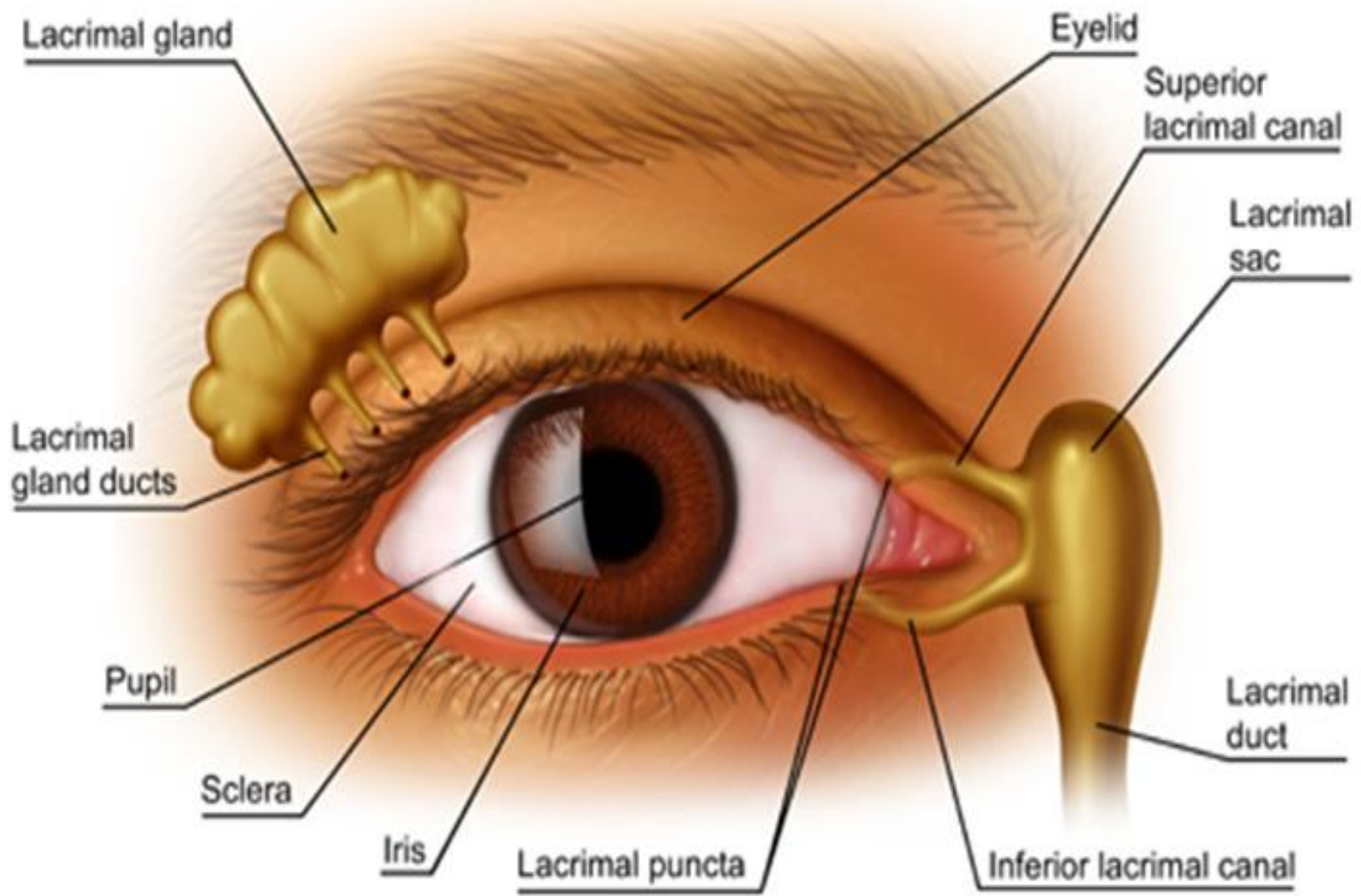


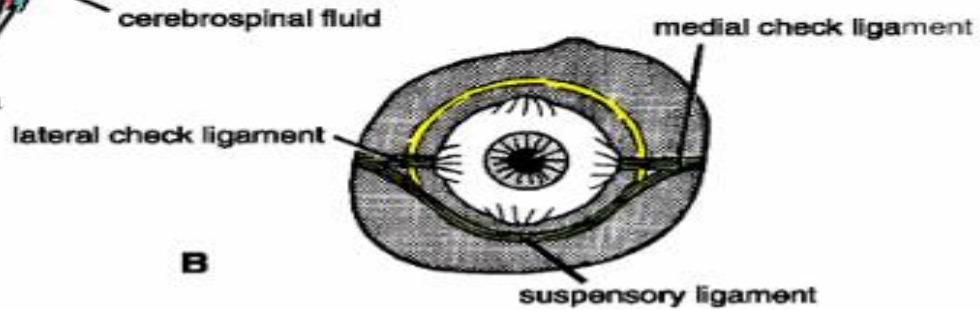
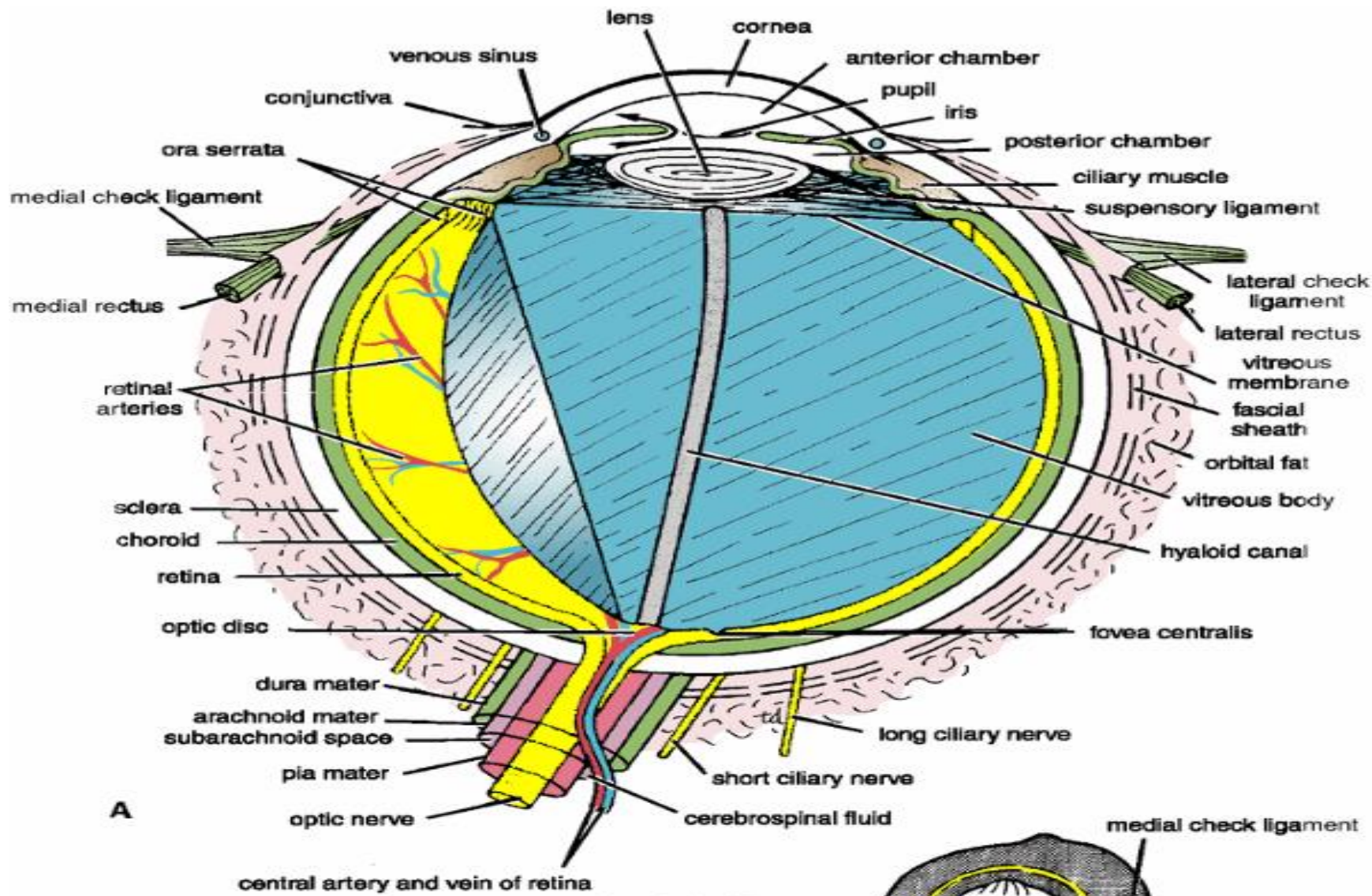


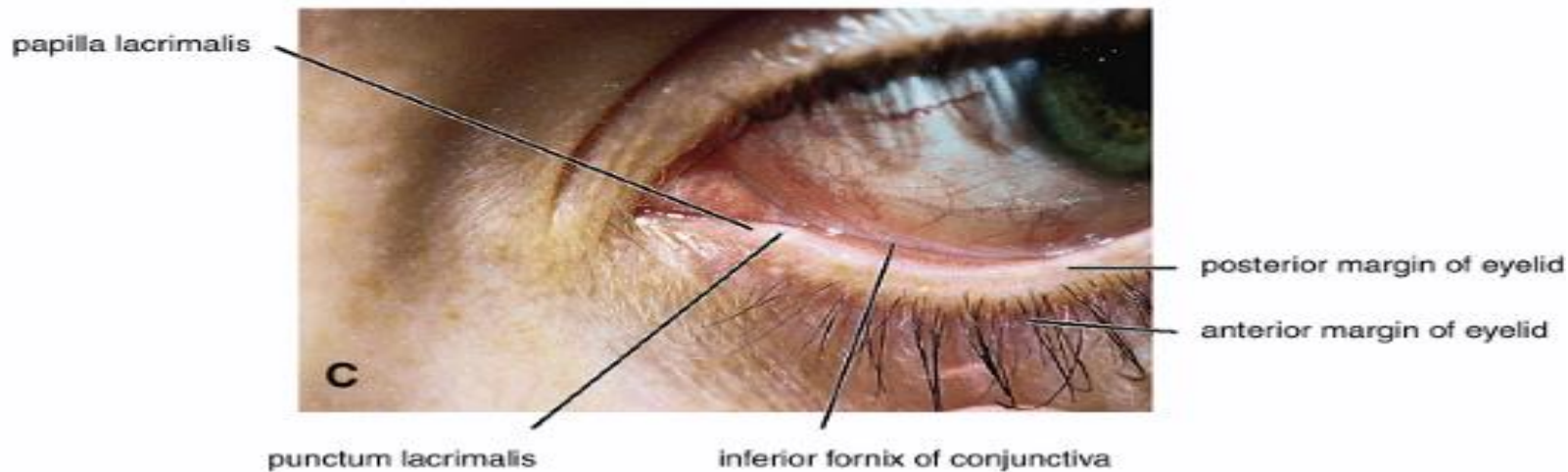
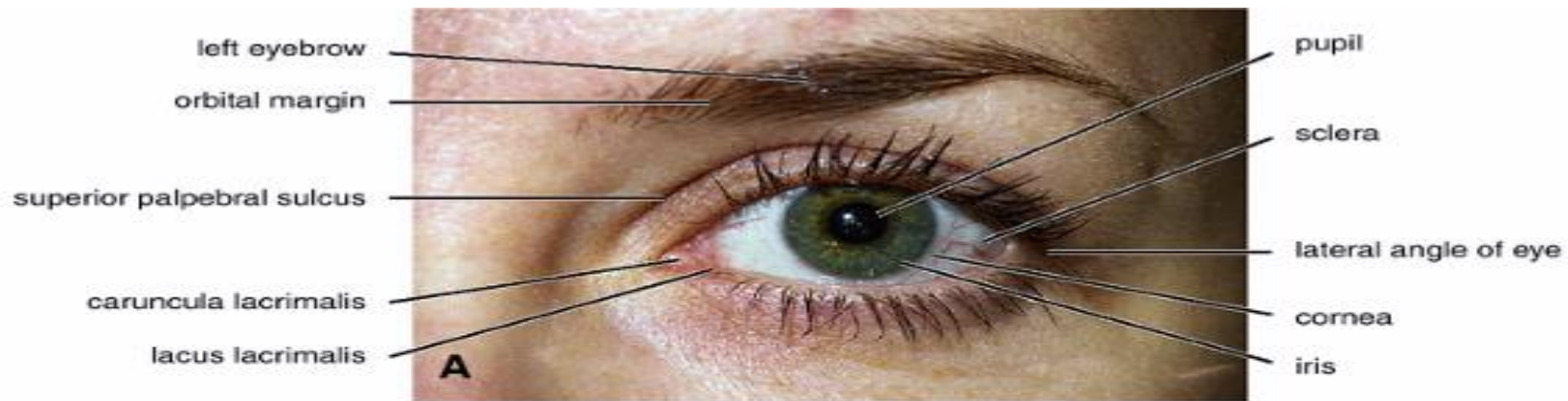
**Fig. 9.1.** Lateral and medial walls of orbits, with axis of orbit and various axes of eye ball.









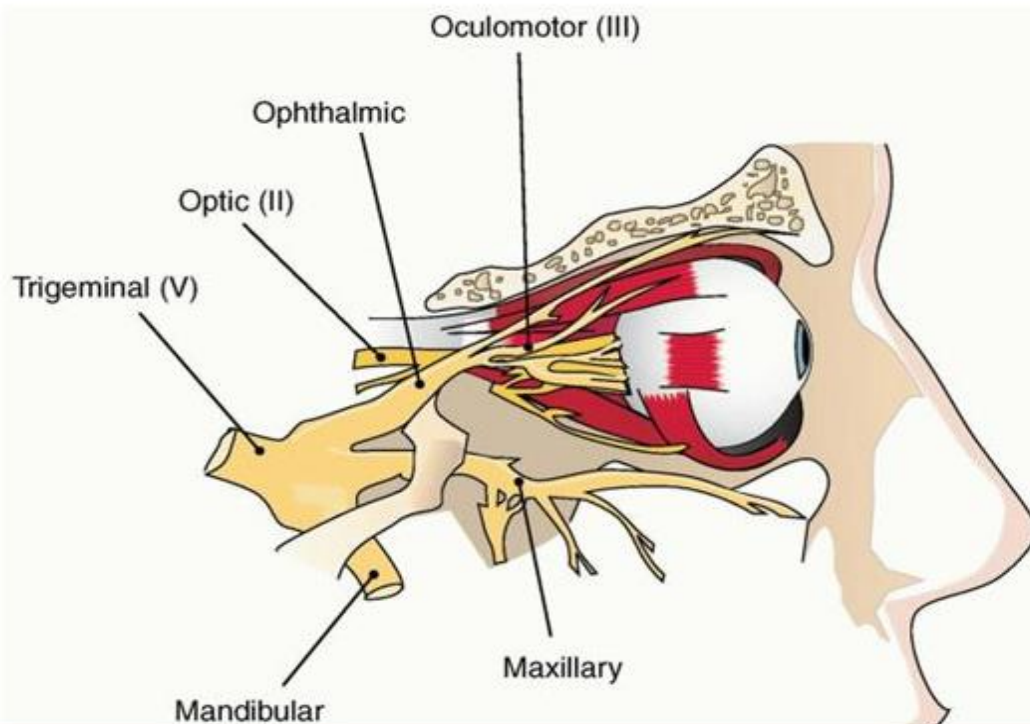


inferior fornix of conjunctiva

# NERVE SUPPLY OF EYE

Three nerves carry motor impulses to the eyeball muscles:

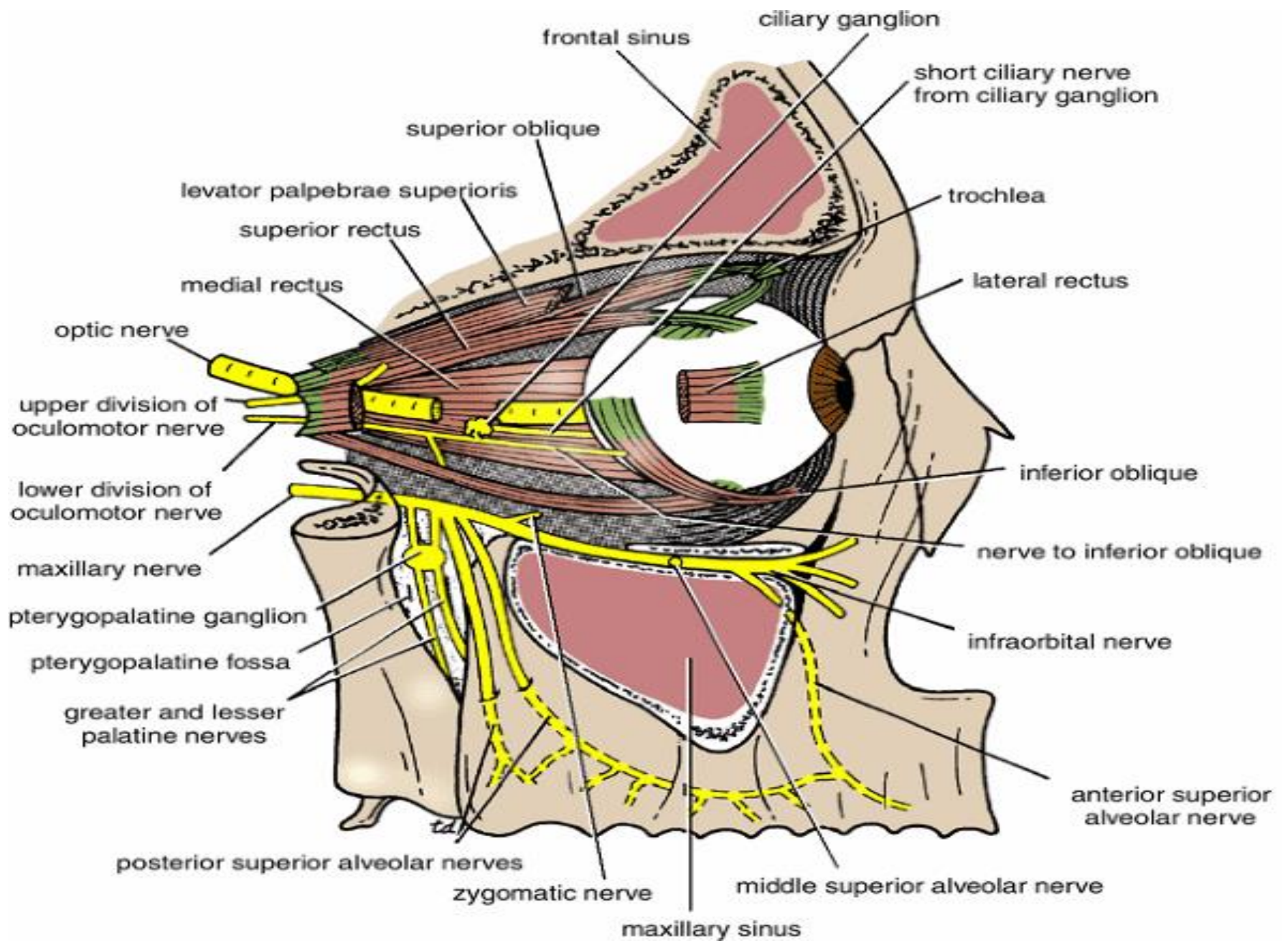
- CNIII – oculomotor; largest motor nerve to the eyeball; supplies voluntary & involuntary muscles to all but two eye muscles
- CNIV – trochlear; supplies superior extrinsic eye muscle
- CNVI – abducens; supplies lateral extrinsic eye muscles

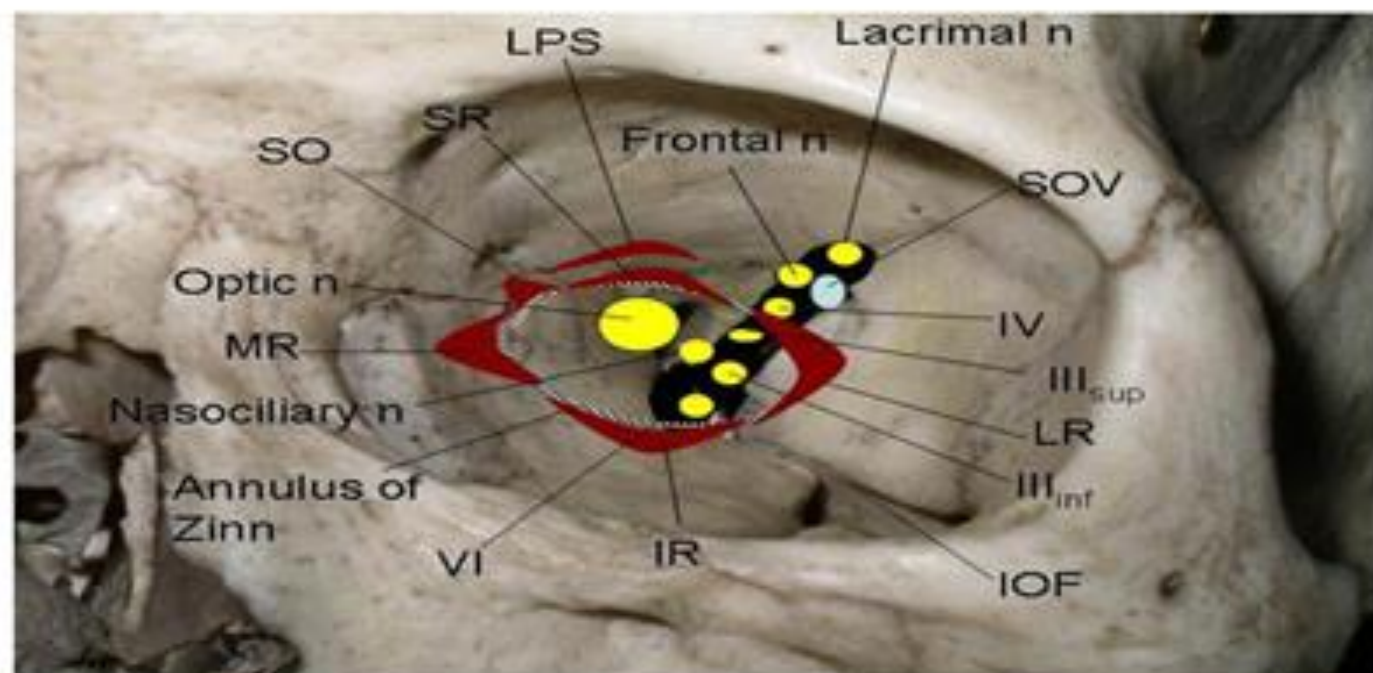




## Nerve Supply to the Eye

- Sensory
  - Optic nerve (CN II)
  - Ophthalmic branch of trigeminal nerve (CN V)
- Motor
  - Oculomotor nerve (CN III)
  - Trochlear (CN IV)
  - Abducens (CN VI)





**Key: LPS, levator muscle; SR, superior rectus; LR, lateral rectus; IR, inferior rectus; MR, medial rectus; SO, superior oblique; SOV, superior ophthalmic vein; III<sub>sup</sub>, superior division of oculomotor nerve; III<sub>inf</sub>, inferior division of oculomotor nerve; IOF, inferior orbital fissure.**

Muscle	Origin	Insertion	Nerve Supply	Action
<b>Extrinsic Muscles of Eyeball (Striated Skeletal Muscle)</b>				
Superior rectus	Tendinous ring on posterior wall of orbital cavity	Superior surface of eyeball just posterior to corneoscleral junction	Oculomotor nerve (third cranial nerve)	Raises cornea upward and medially
Inferior rectus	Tendinous ring on posterior wall of orbital cavity	Inferior surface of eyeball just posterior to corneoscleral junction	Oculomotor nerve (third cranial nerve)	Depresses cornea downward and medially
Medial rectus	Tendinous ring on posterior wall of orbital cavity	Medial surface of eyeball just posterior to corneoscleral junction	Oculomotor nerve (third cranial nerve)	Rotates eyeball so that cornea looks medially

Lateral rectus	Tendinous ring on posterior wall of orbital cavity	Lateral surface of eyeball just posterior to corneoscleral junction	Abducent nerve (sixth cranial nerve)	Rotates eyeball so that cornea looks laterally
Superior oblique	Posterior wall of orbital cavity	Passes through pulley and is attached to superior surface of eyeball beneath superior rectus	Trochlear nerve (fourth cranial nerve)	Rotates eyeball so that cornea looks downward and laterally
Inferior oblique	Floor of orbital cavity	Lateral surface of eyeball deep to lateral rectus	Oculomotor nerve (third cranial nerve)	Rotates eyeball so that cornea looks upward and laterally

## Intrinsic Muscles of Eyeball (Smooth Muscle)

Sphincter pupillae of iris			Parasympathetic via oculomotor nerve	Constricts pupil
Dilator pupillae of iris			Sympathetic	Dilates pupil
Ciliary muscle			Parasympathetic via oculomotor nerve	Controls shape of lens; in accommodation, makes lens more globular

## Muscles of Eyelids

Orbicularis oculi (Table 11-4)

Levator  
palpebrae  
superioris

Back of  
orbital  
cavity

Anterior  
surface and  
upper margin  
of superior  
tarsal plate

Striated muscle  
oculomotor  
nerve, smooth  
muscle  
sympathetic

Raises upper lid

**THANKS**