

# Extraocular muscles

There are 7 extra-ocular muscles - 6 of each responsible for moving the eye ball and 1 is responsible for raising the eyelids.

The extra-ocular muscles are:

**Levator palpebrae Superioris** (most superior extra-ocular muscle)

- **Origin:** lesser wing of sphenoid bone (superior-anterior to optic canal)
- **Insertion:** superior tarsus of the eyelid
- **Function:** raising the eyelid
- **Innervation:** superior division of the oculomotor nerve (CN 3).
- **Unique feature:** some of its inferior fibers are smooth muscle fibers - help with eyelid elevation. Innervated by post-ganglionic sympathetic fibers.

**Rectus Muscles** (superior, medial and lateral)

**Origin:** the common tendinous ring (all of the muscles)

**Insertion:** sclera (posterior to corneoscleral junction)

**Function:** the axis of the orbit and the axis of the eyeball aren't the same

- Superior rectus: moves the eyeball superiorly and medially.
- Inferior rectus: moves the eyeball inferiorly and medially
- Lateral rectus: abduction of eyeball
- Medial rectus: adduction of eyeball

Innervation:

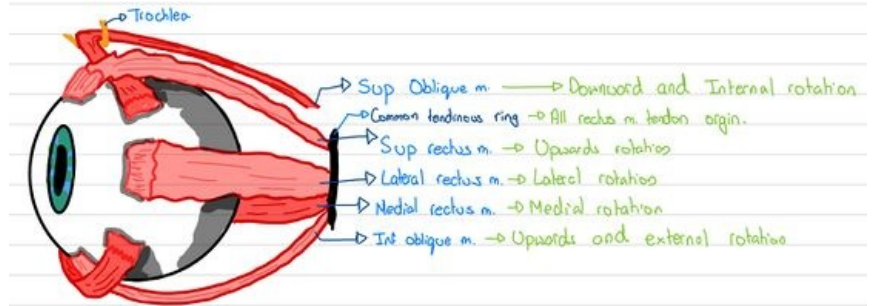
- All except lateral rectus: oculomotor n. (CN 3)
- Lateral rectus: abducent nerve (CN 6)

**Superior oblique:** medial to the levator palpebrae superioris

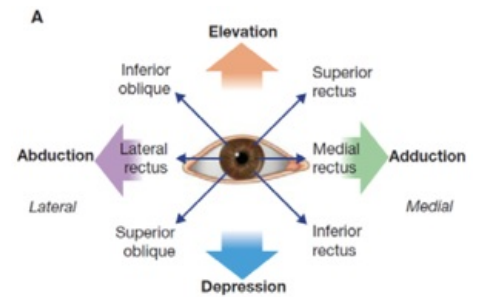
- **Origin:** body of the sphenoid bone.
- **Insertion:** tendon pass through trochlea insert in sclera (deep to superior rectus).
- **Function:** abducts, depresses and rotates eyeball medially.
- **Innervation:** trochlear nerve (CN 4).

**Inferior oblique**

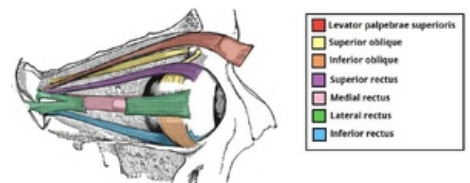
- **Origin:** anterior floor of the orbit (maxilla).
- **Insertion:** Runs posterolaterally crossing the inferior rectus insert in sclera (deep to lateral rectus)
- **Function:** abducts, elevates and rotated eyeball laterally
- **Innervation:** oculomotor nerve (CN 3)



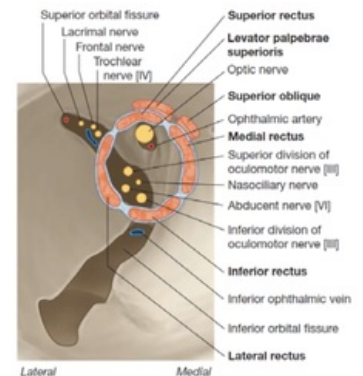
Extraocular muscles (schematic) by Eshaan Mehmi



Function of eye muscles



Lateral view of Eye muscles



Frontal Section