



Al- Mustaqbal University

جامعة المستقبل الاهلية

First stage.

مرحلة الاولى

Department of Optometry(Optics)

قسم التقنيات البصرية

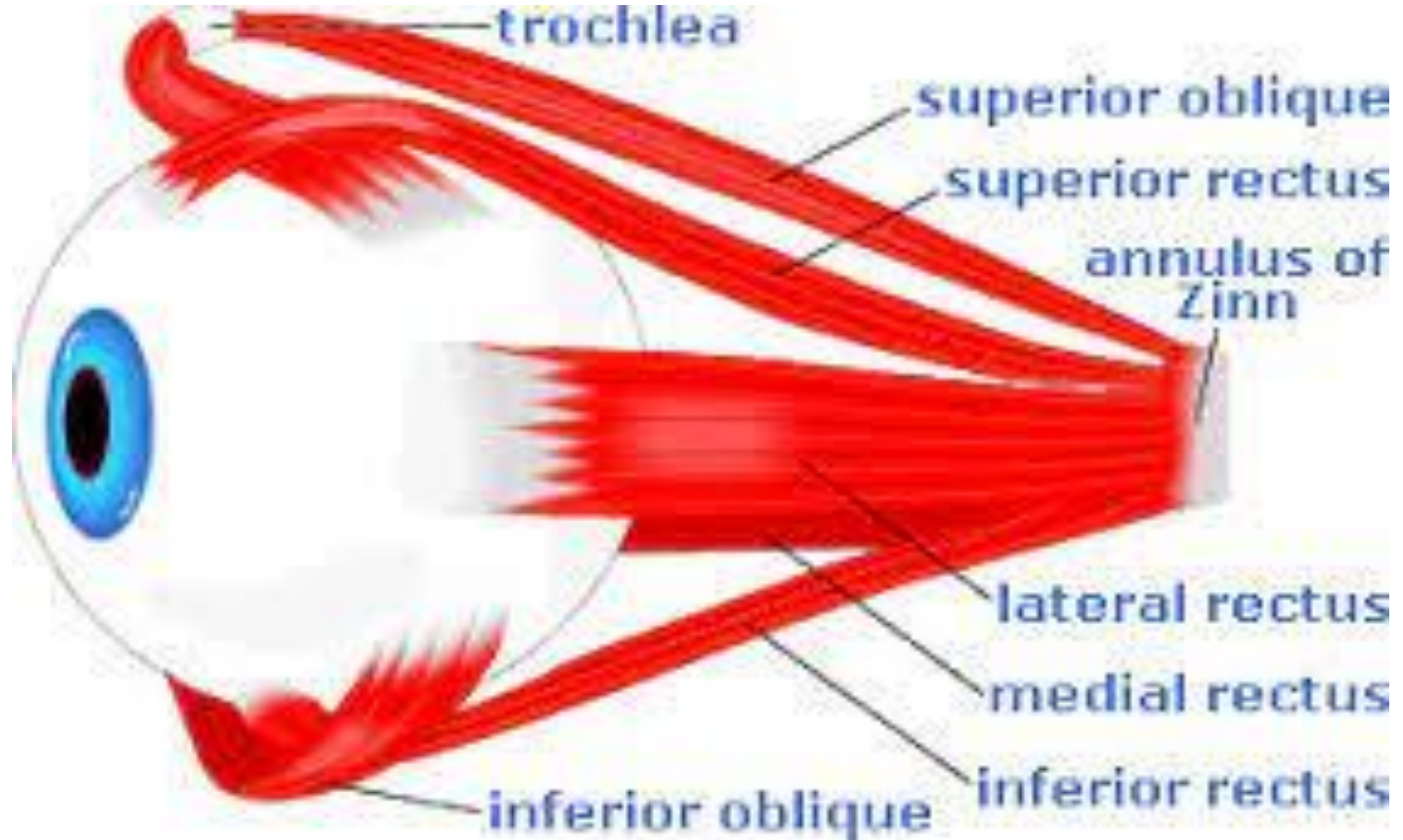
Head and neck anatomy

Lec. 9

Anatomical Terminology

Dr. Marrwan Hisham Mohamed

THE EXTRA OCULAR MUSCLES



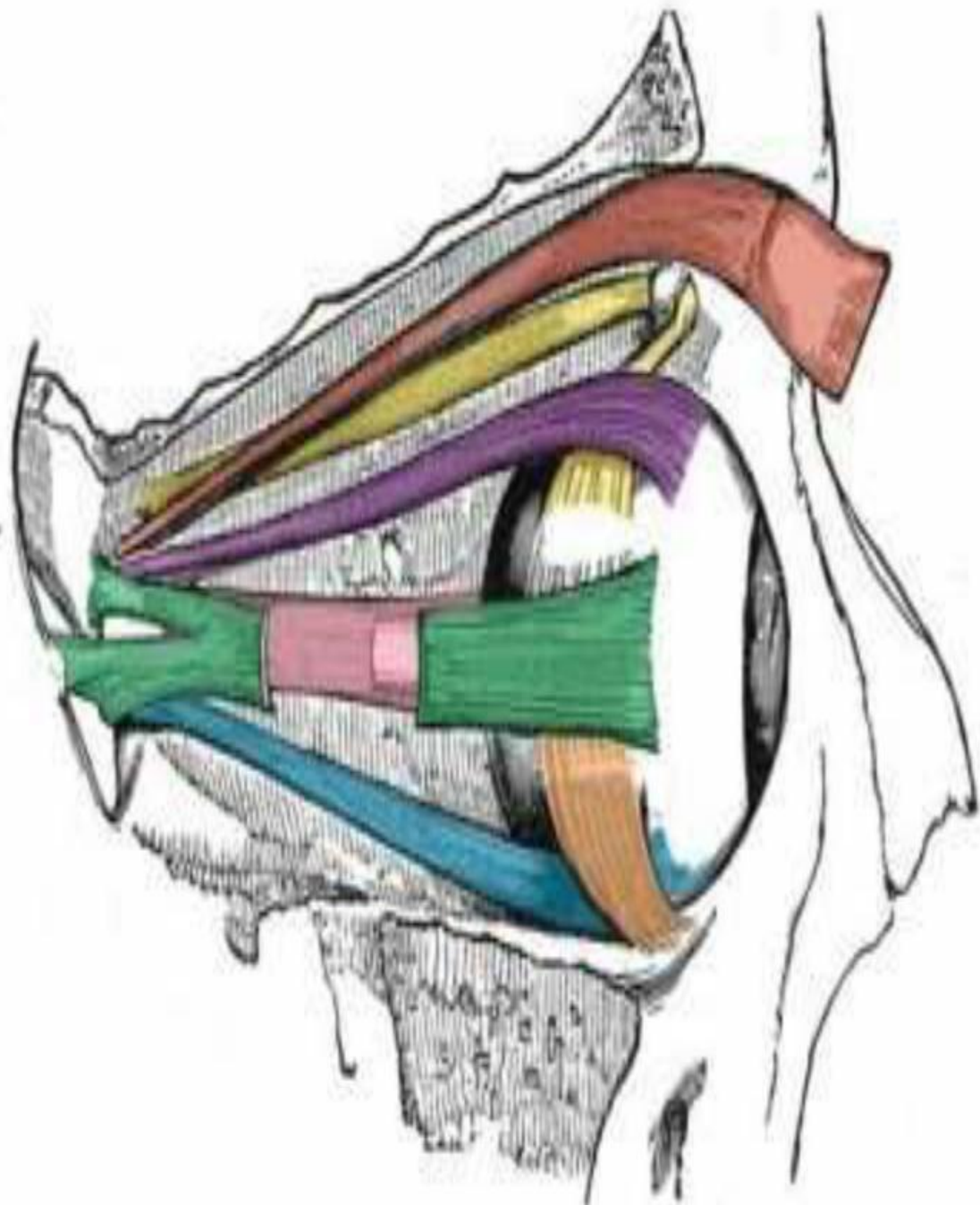
THE EXTRA OCULAR MUSCLES








- ❖ The extra ocular muscles are located within the orbit, but are extrinsic and separate from the eyeball itself.
- ❖ They act to control the movement of the eyeball and the superior eyelid
- ❖ Functionally, they can be divided into two groups:-
 - 1. Responsible for superior eyelid movement – Levator palpebrae superioris.**
 - 2. Responsible for eye movement – Recti and oblique muscles.**

SEVEN EXTRA OCULAR MUSCLES

❖ There are seven extra ocular muscles: –

1. **The Levator Palpebrae Superioris**
2. **Superior Rectus**
3. **Inferior Rectus**
4. **Medial Rectus**
5. **Lateral Rectus**
6. **Inferior Oblique**
7. **Superior Oblique**

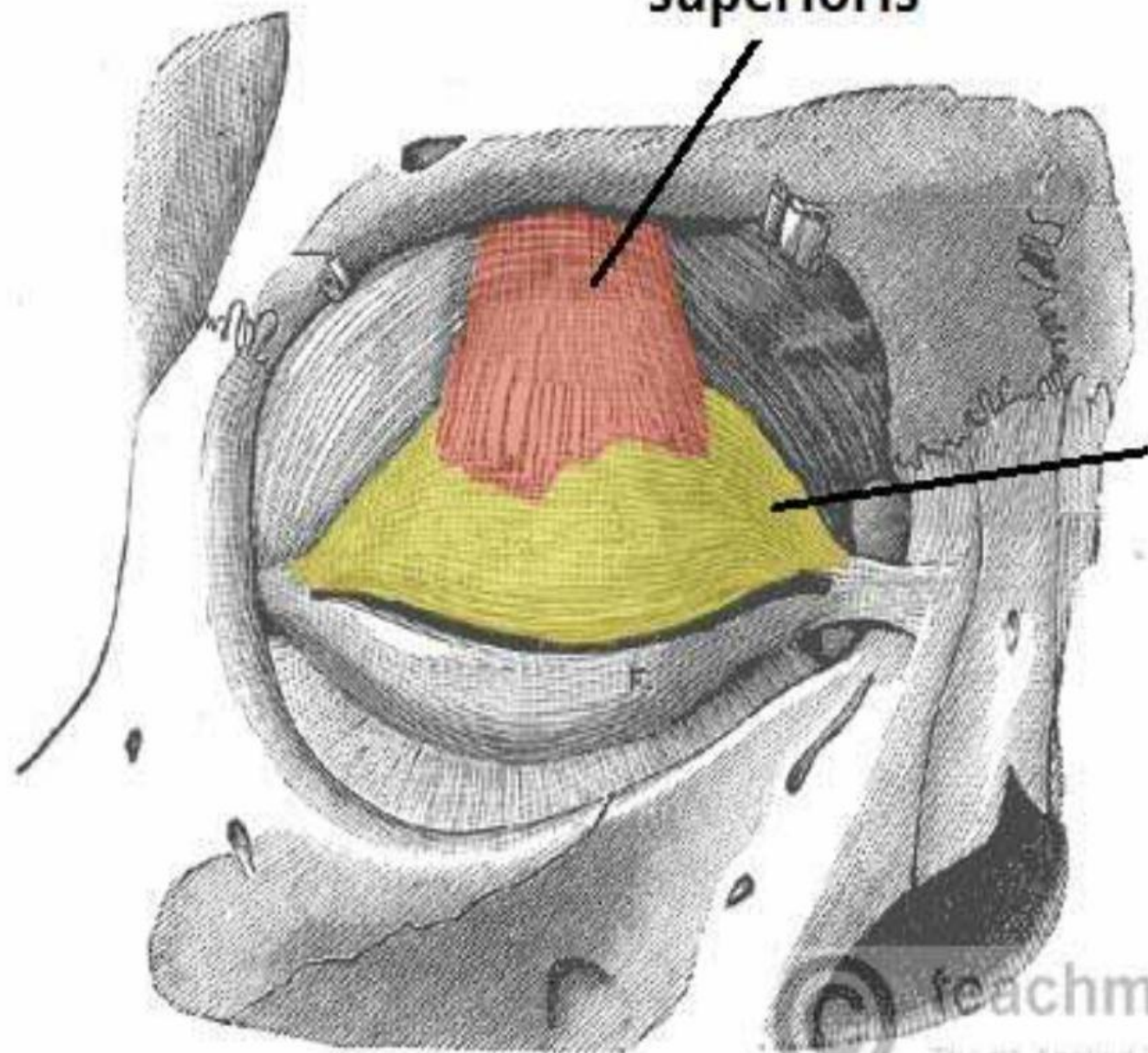


-  Levator palpebrae superioris
-  Superior oblique
-  Inferior oblique
-  Superior rectus
-  Medial rectus
-  Lateral rectus
-  Inferior rectus

LEVATOR PALPEBRAE SUPERIORIS

- It is a skeletal muscle.
- It originates on the lesser wing of the sphenoid bone, just above the optic foramen.
- It is the muscle in the orbit that elevates the superior (upper) eyelid.
- The superior tarsal muscle, a smooth muscle, is attached to the levator palpebrae superioris.
- The levator palpebrae superioris is innervated by the oculomotor nerve (CN III)

**Levator palpebrae
superioris**



**Superior tarsal
plate**

Recti Muscles

❖ The superior rectus

- ✓ It is an extra ocular muscle that attaches to the top of the eye.
- ✓ It moves the eye upward
- ✓ It is innervated by the oculomotor nerve (CN III)

❖ The inferior rectus

- ✓ It is an extra ocular muscle that attaches to the bottom of the eye.
- ✓ It moves the eye downward.
- ✓ It is innervated by the oculomotor nerve (CN III)

❖ **The medial rectus**

- ✓ It is an extra ocular muscle that attaches to the side of the eye near the nose.
- ✓ It moves the eye inward toward the nose.
- ✓ It is innervated by the oculomotor nerve (CN III)

❖ **The lateral rectus**

- ✓ It is an extra ocular muscle that attaches to the side of the eye near the temple.
- ✓ It moves the eye outward.
- ✓ It is innervated by Abducens nerve (CN VI).

OBLIQUE MUSCLES

❖ **The superior oblique**

- ✓ It is an extra ocular muscle that comes from the back of the orbit.
- ✓ It travels through a small pulley (the trochlea) in the orbit near the nose and then attaches to the top of the eye.
- ✓ The superior oblique rotates the eye inward around the long axis of the eye (front to back).
- ✓ The superior oblique also moves the eye downward.
- ✓ It is innervated by Abducens nerve (CN VI).

❖ **The inferior oblique**

- ✓ It is an extra ocular muscle that arises in the front of the orbit near the nose.
- ✓ It then travels outward and backward in the orbit before attaching to the bottom part of the eyeball.
- ✓ It rotates the eye outward along the long axis of the eye (front to back).
- ✓ The inferior oblique also moves the eye upward.
- ✓ It is innervated by the oculomotor nerve (CN III)

superior rectus (upward movement)

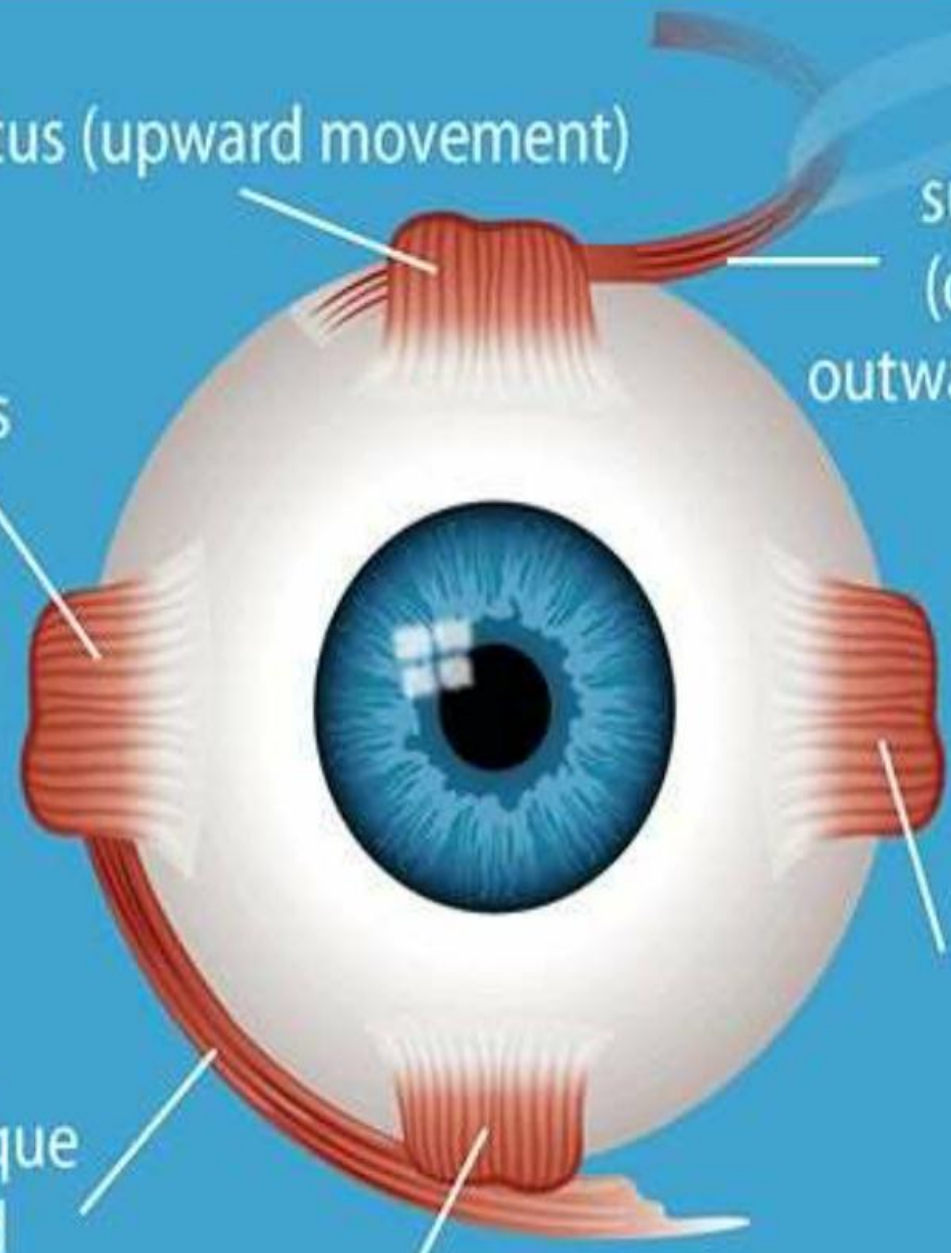
superior oblique
(downward and
outward movement)

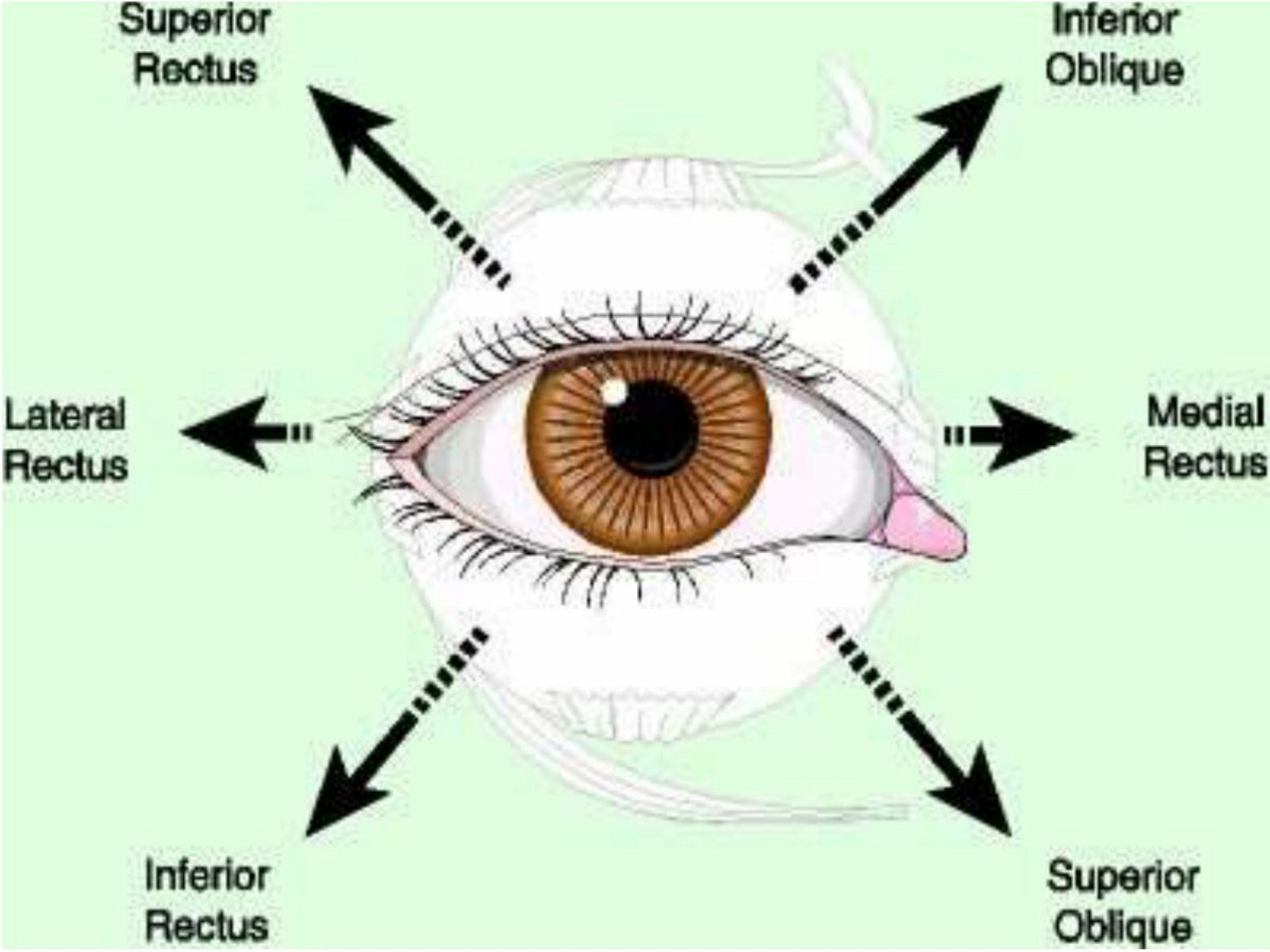
lateral rectus
(outward
movement)

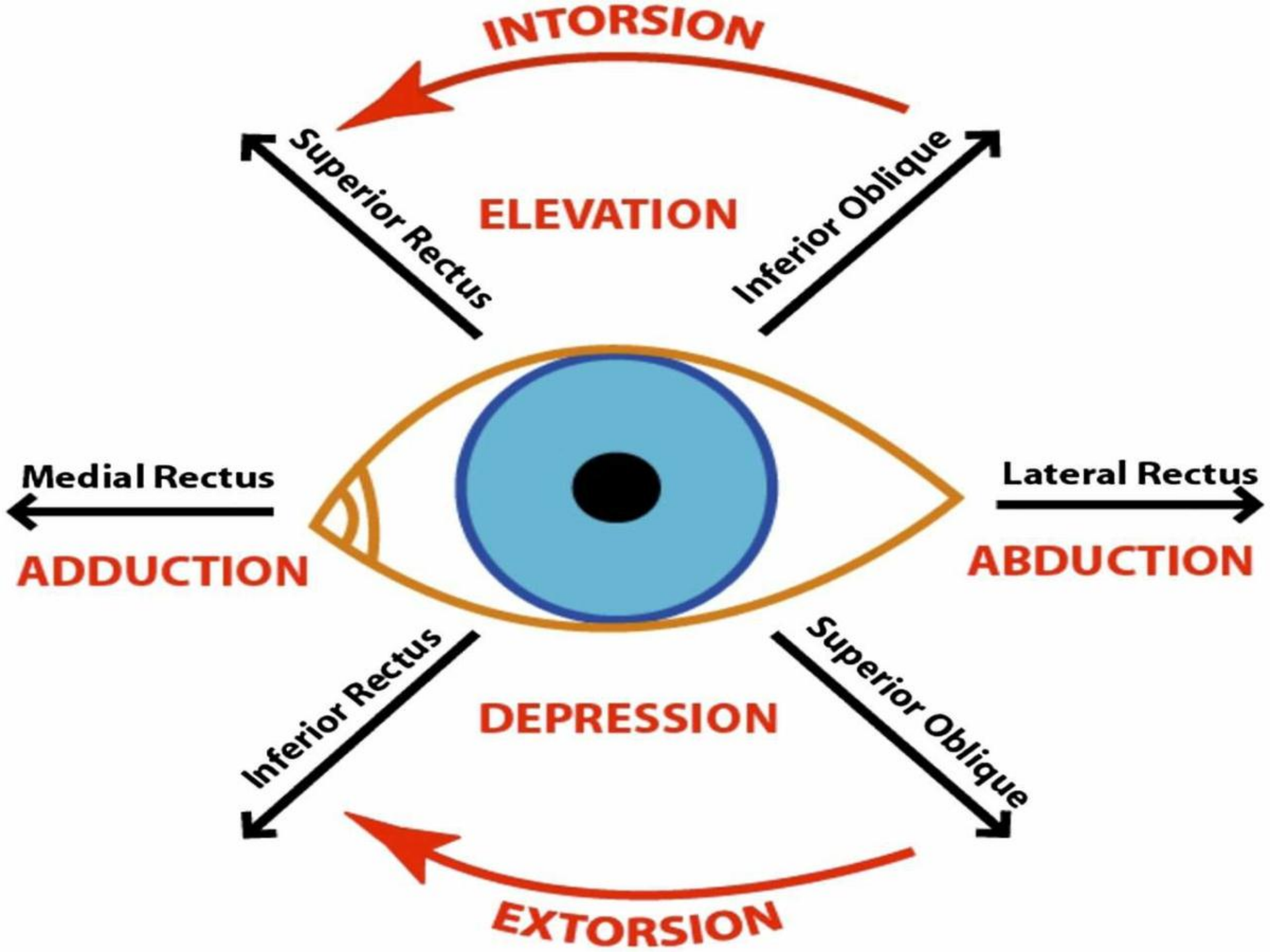
medial rectus
(inward
movement)

inferior oblique
(upward and
outward movement)

inferior rectus (downward movement)







Thank you