

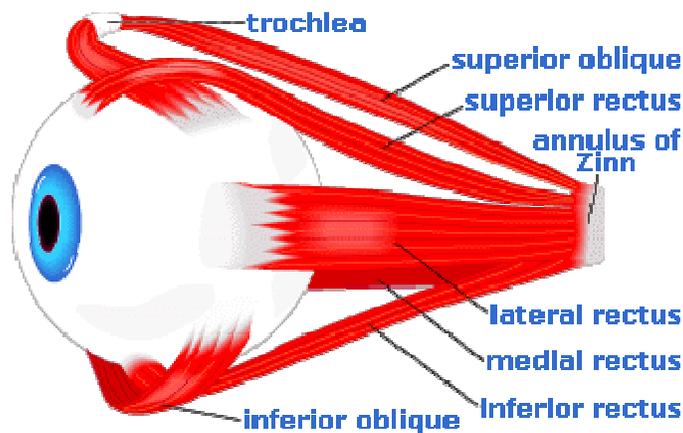
**Embryology, Anatomy and
Physiology of the Eye**
Dr. Al-Fakey

Additional Notes

Extraocular muscles of the eye

- The extraocular muscles, considering their relatively small size, are incredibly strong and efficient. There are the six extraocular muscles, which act to turn or rotate an eye about its vertical, horizontal, and antero-posterior axes:
 1. medial rectus (MR),
 2. lateral rectus (LR),
 3. superior rectus (SR),
 4. inferior rectus (IR),
 5. superior oblique (SO), and
 6. inferior oblique (IO).

- Here is a schematic of a left eye, showing how its extraocular muscles insert into the eye:



OPHTHA

Muscle movements

- A given extraocular muscle moves the pupil, at the front of the eye, in a specific direction or directions, as follows:
 - **medial rectus (MR)**
 - ✓ moves the eye inward, toward the nose (adduction)
 - **lateral rectus (LR)**
 - ✓ moves the eye outward, away from the nose (abduction)
 - **superior rectus (SR)**
 - ✓ primarily moves the eye upward (elevation)
 - ✓ secondarily rotates the top of the eye toward the nose (intorsion)
 - ✓ tertiarily moves the eye inward (adduction)
 - **inferior rectus (IR)**
 - ✓ primarily moves the eye downward (depression)
 - ✓ secondarily rotates the top of the eye away from the nose (extorsion)
 - ✓ tertiarily moves the eye inward (adduction)
 - **superior oblique (SO)**
 - ✓ primarily rotates the top of the eye toward the nose (intorsion)
 - ✓ secondarily moves the eye downward (depression)
 - ✓ tertiarily moves the eye outward (abduction)
 - **inferior oblique (IO)**
 - ✓ primarily rotates the top of the eye away from the nose (extorsion)
 - ✓ secondarily moves the eye upward (elevation)
 - ✓ tertiarily moves the eye outward (abduction)

OPHTHA

this is summary of the eye movements

Muscle	Innervation	Primary function	Secondary function	Tertiary function
Levator palpebrae superioris	Oculomotor nerve	Elevation of the superior (upper) eyelid	----	----
Superior rectus	Oculomotor nerve	Elevation	Intorsion	Adduction
Inferior rectus	Oculomotor nerve	Depression	Extorsion	Adduction
Lateral rectus	Abducens nerve	Abduction	----	----
Medial rectus	Oculomotor nerve	Adduction	----	----
Superior oblique	Trochlear nerve	Intorsion	Depression	Abduction
Inferior oblique	Oculomotor nerve	Extorsion	Elevation	Abduction

=====

Source :

http://www.tedmontgomery.com/the_eye/eom.html

http://en.wikipedia.org/wiki/Muscles_of_orbit

A1 426 TEAM

Abdulaziz Al-Abdulkarim
Abdulelah Osaimy : تنسيق