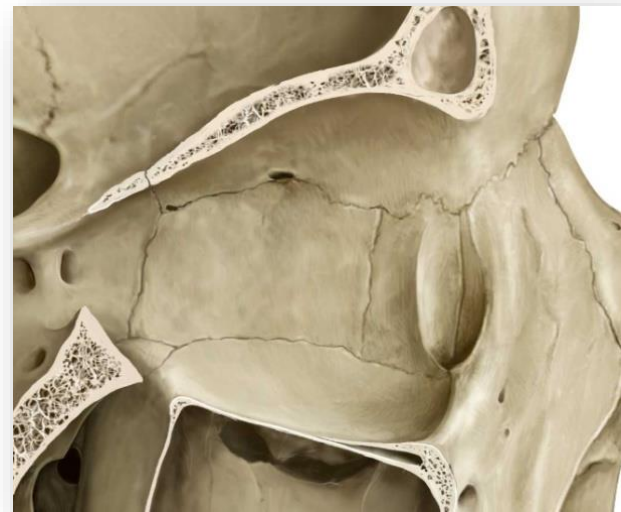
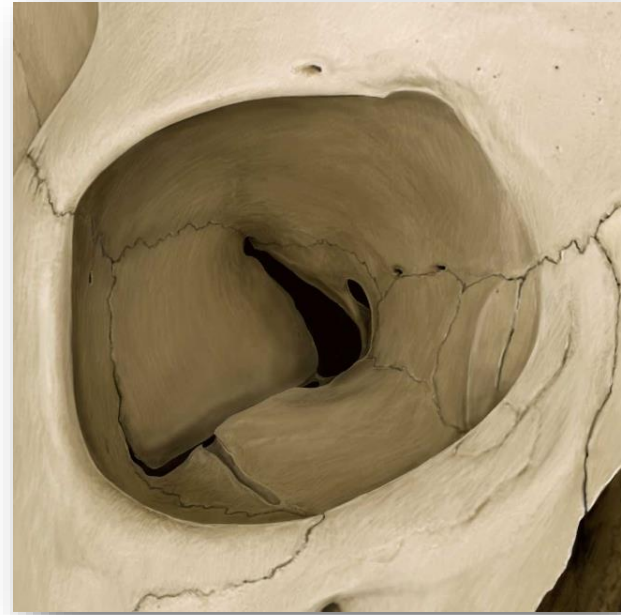
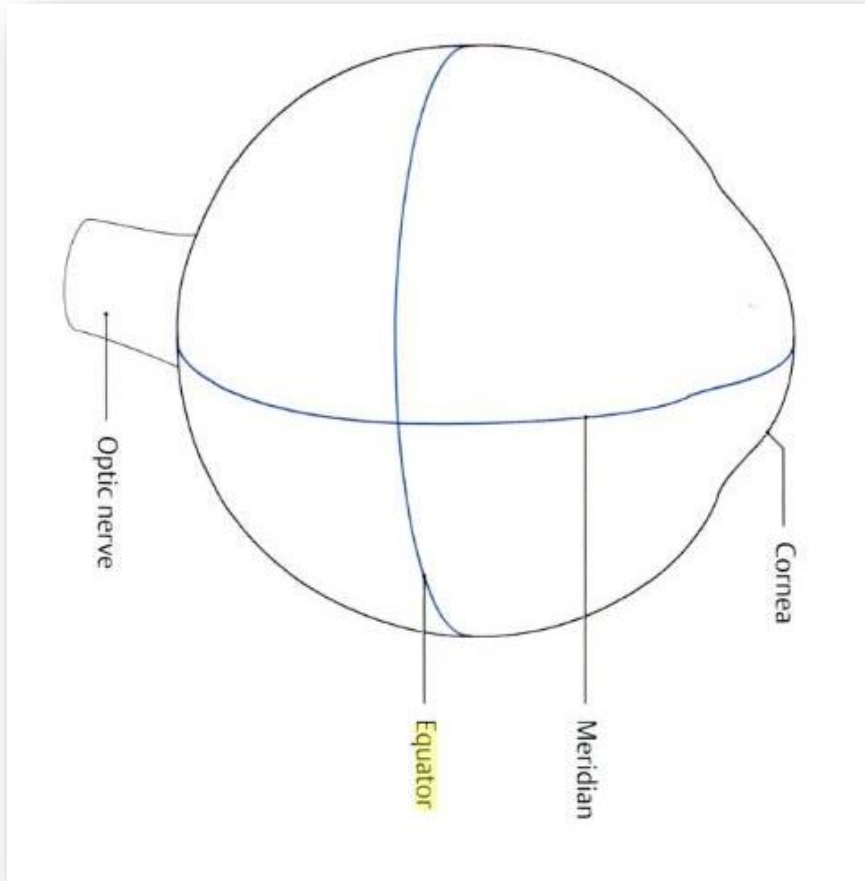


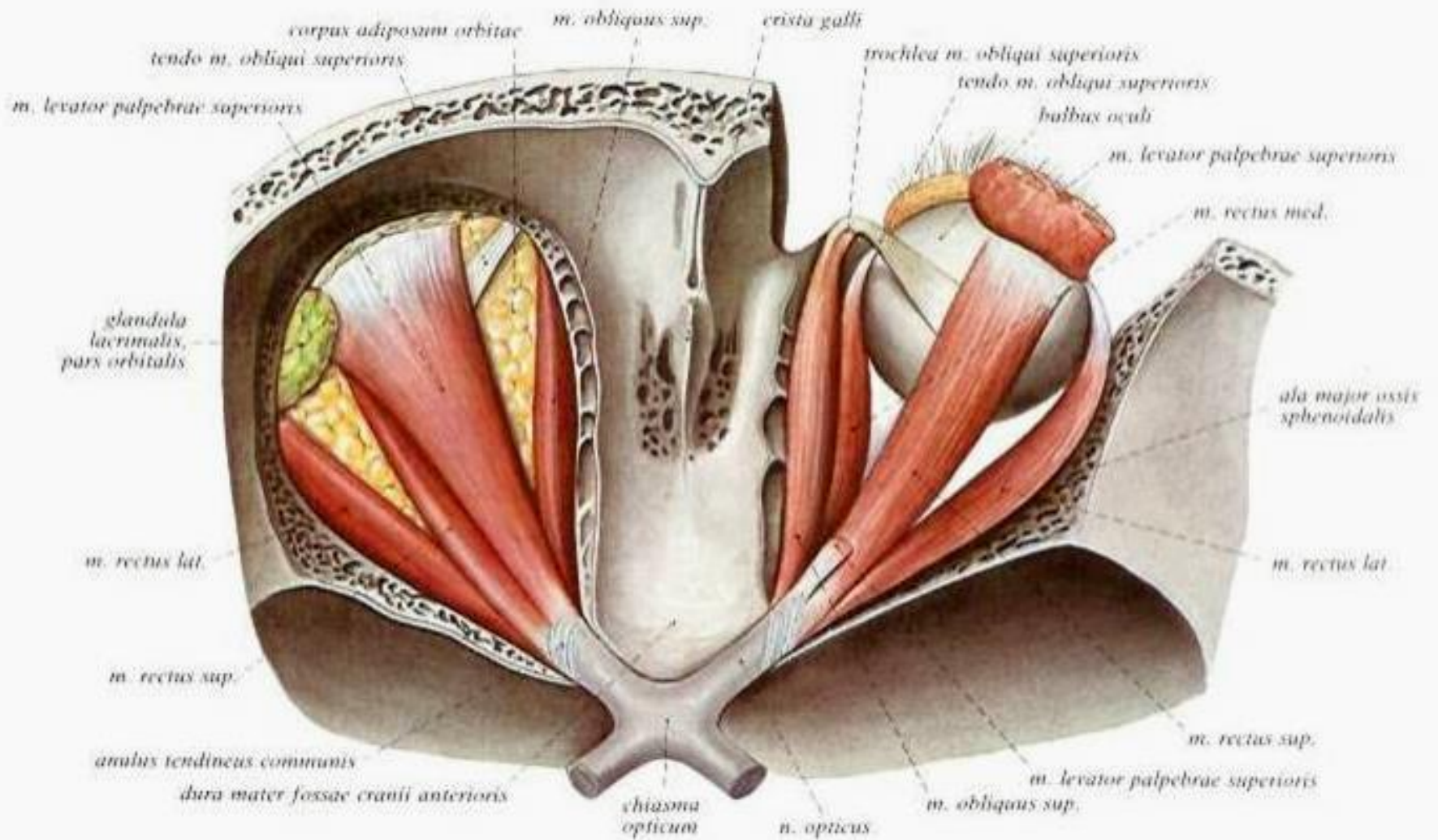


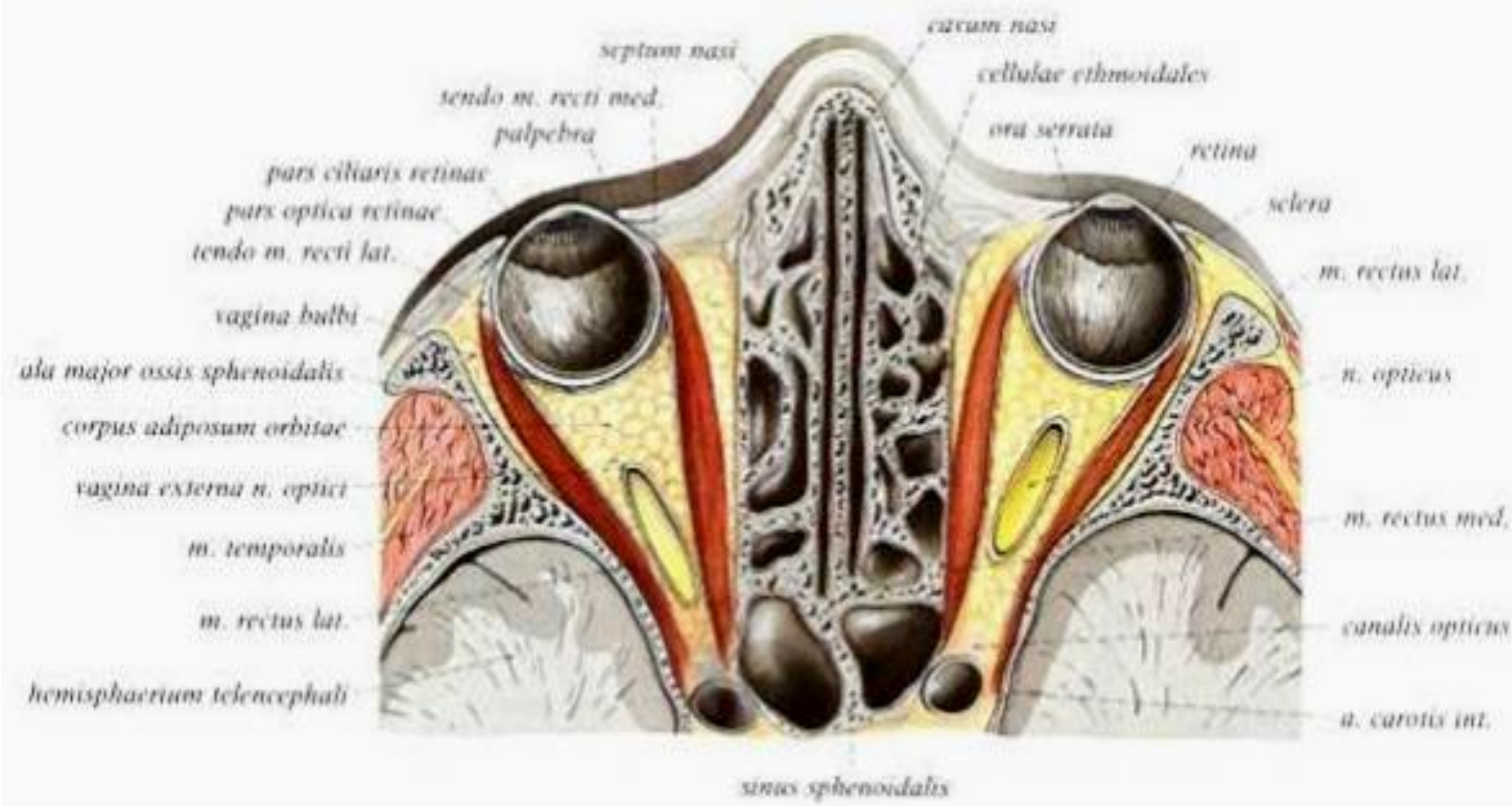
Szemizmok, szem mozgásai

Dr. Gerber Gábor

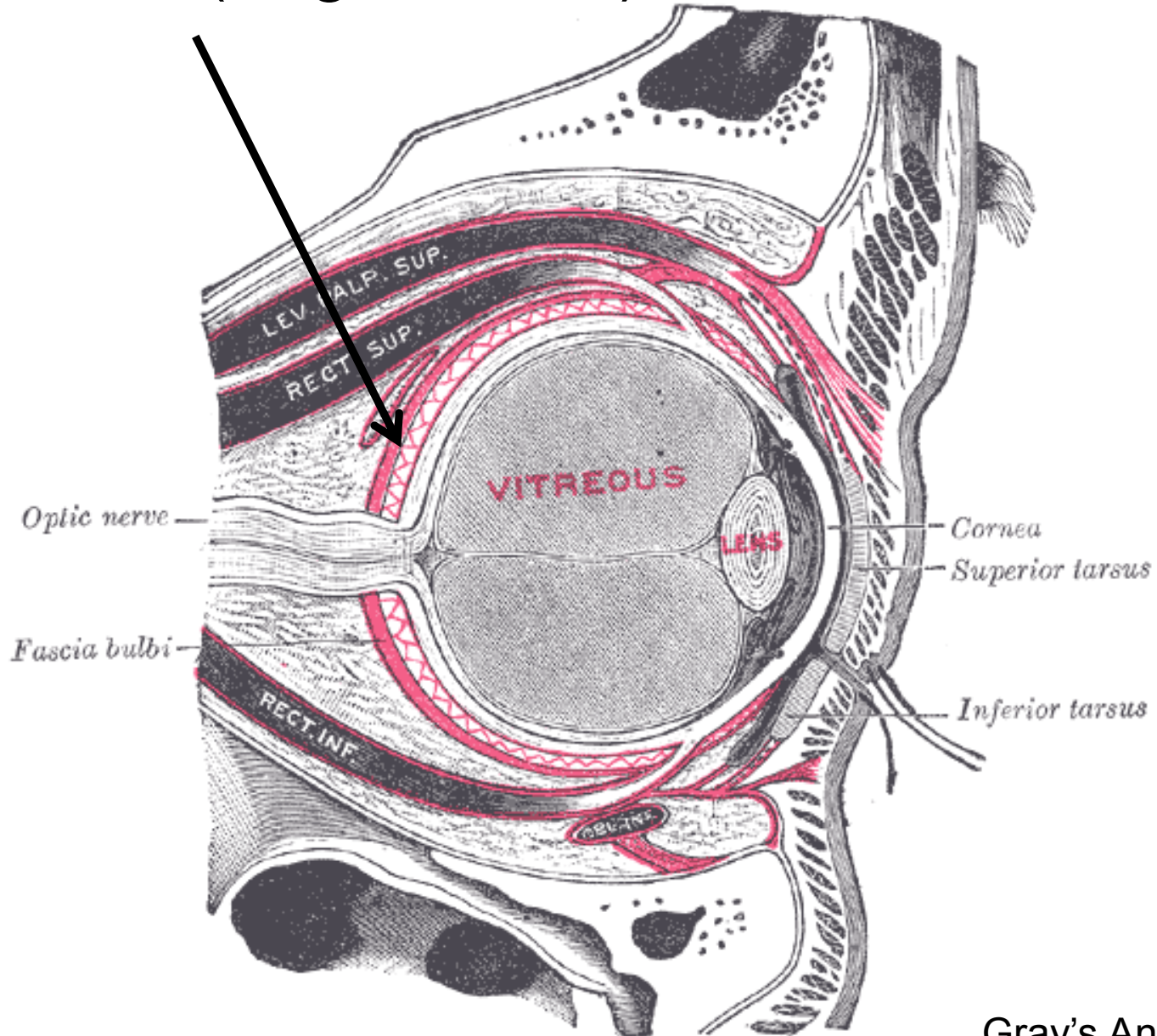
Orbita

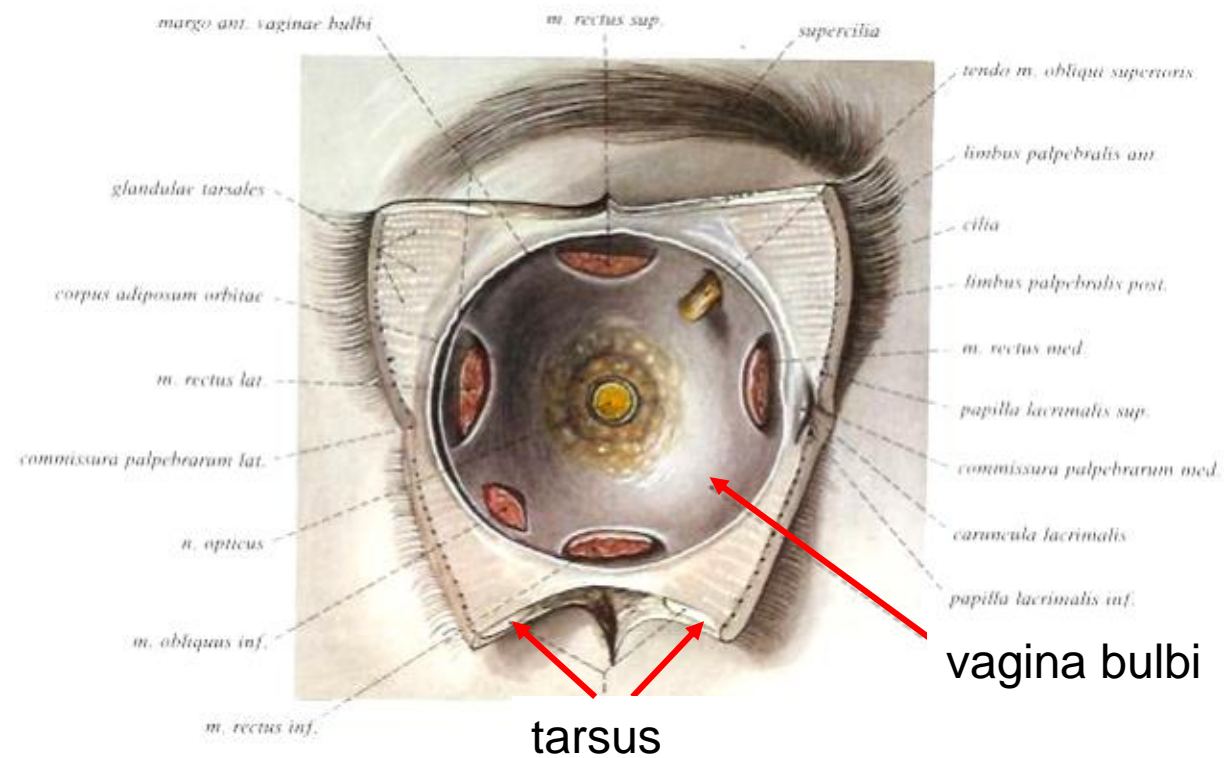
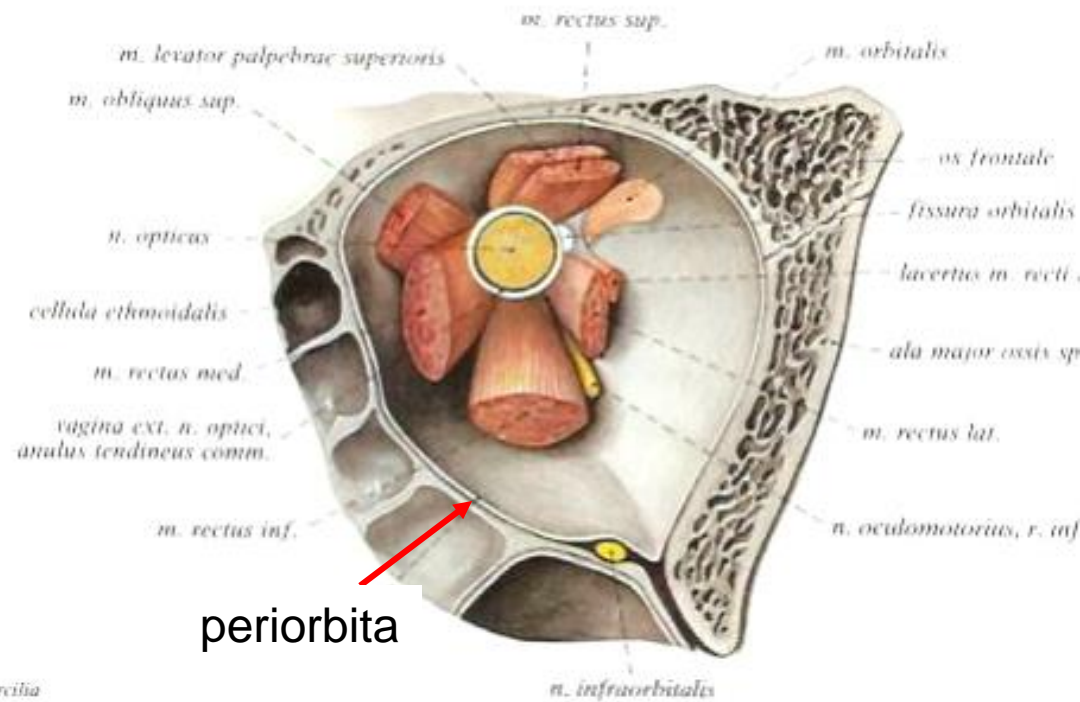




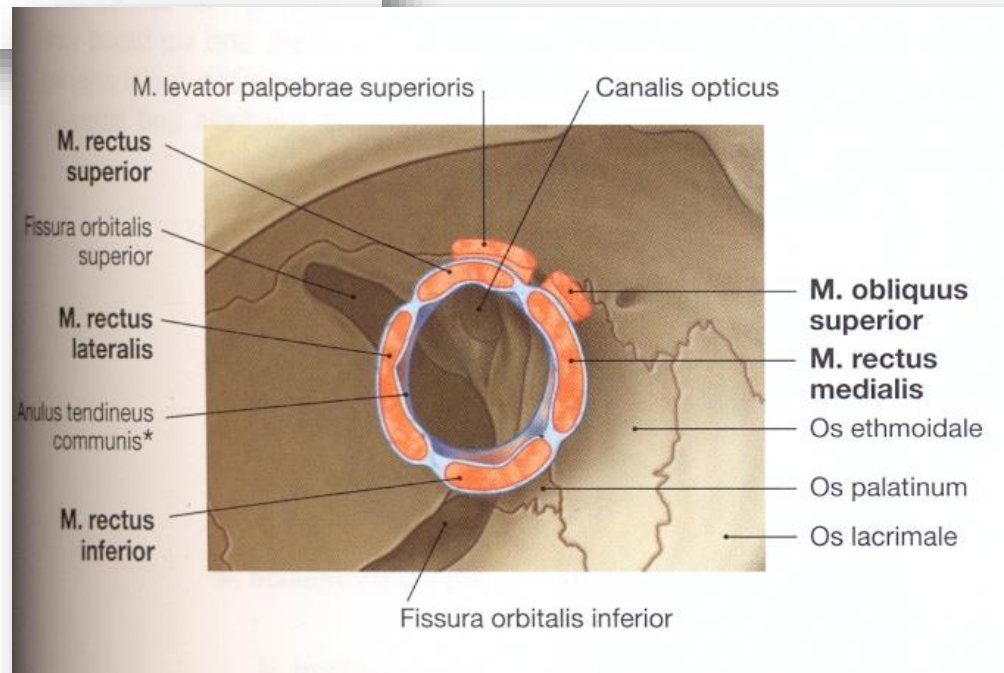
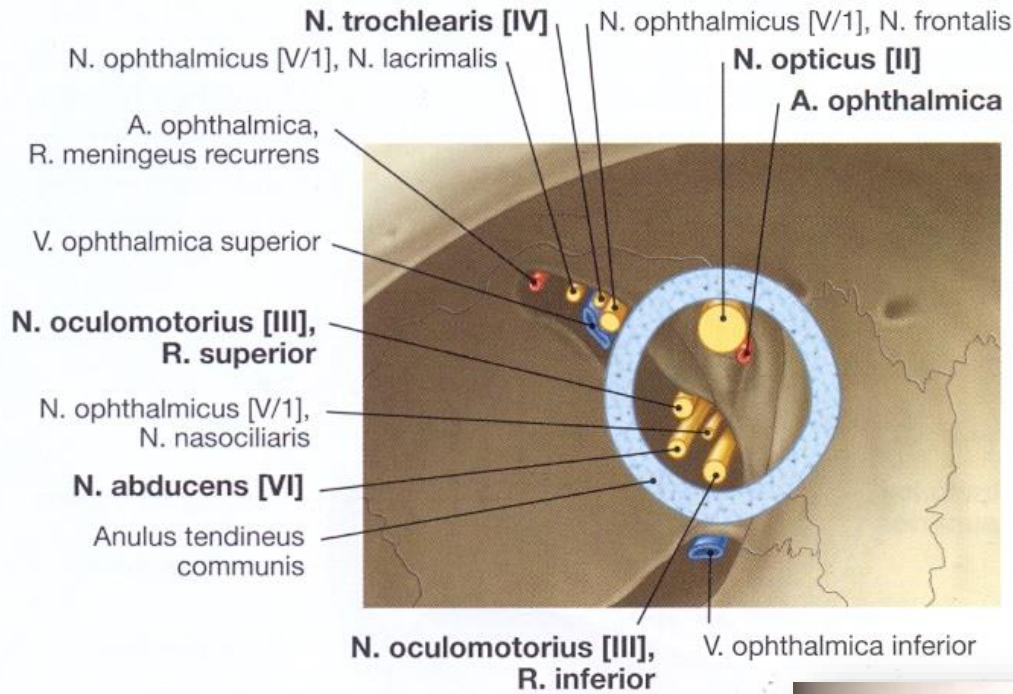


Tenon-tok (Vagina bulbi)

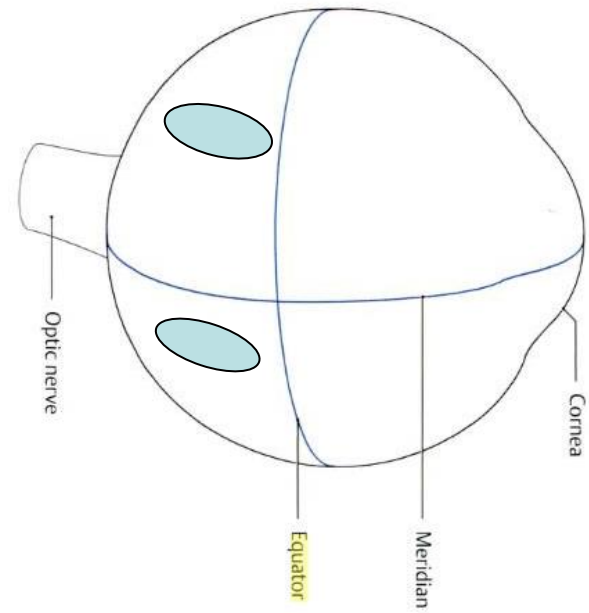
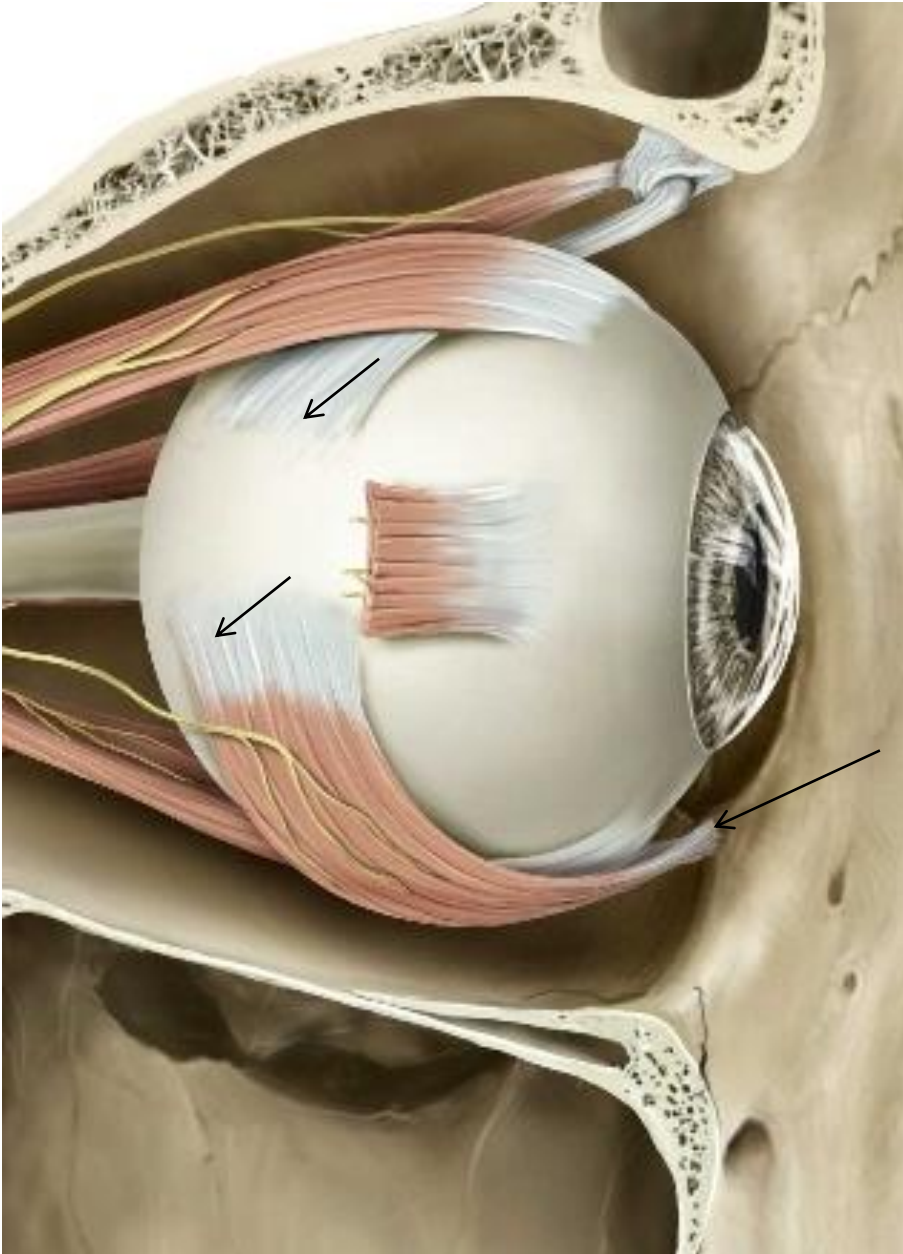


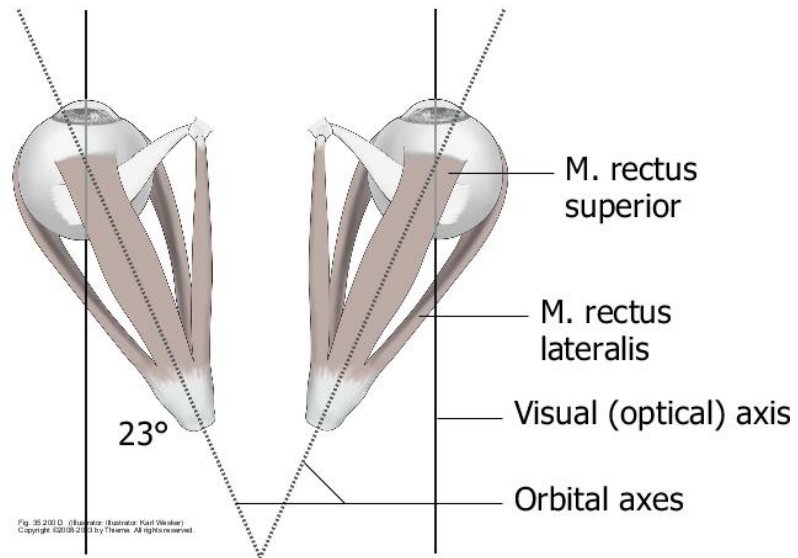
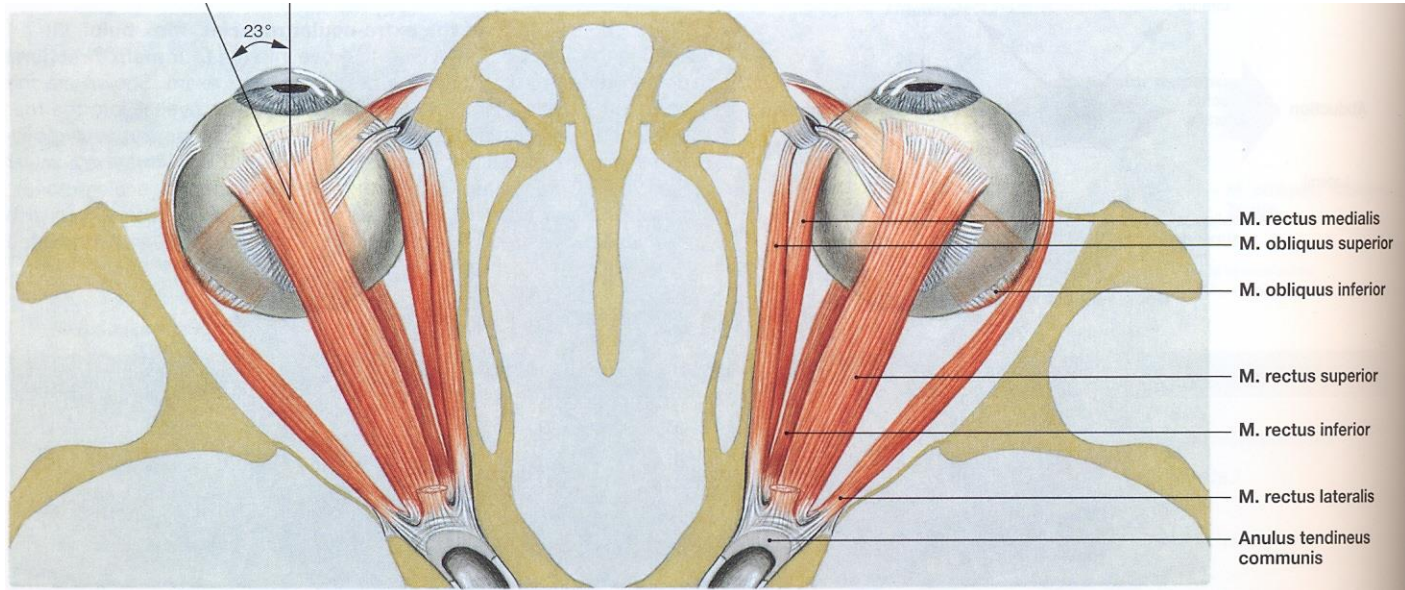


Anulus tendineus communis

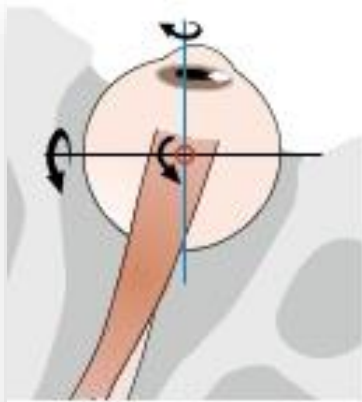


Szemizmok tapadása

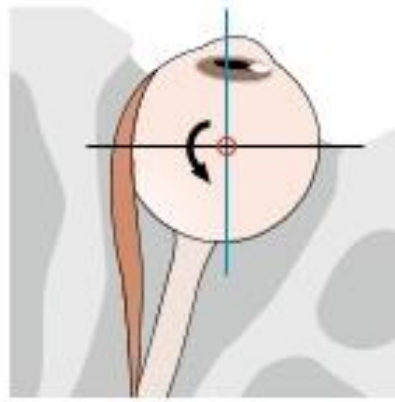




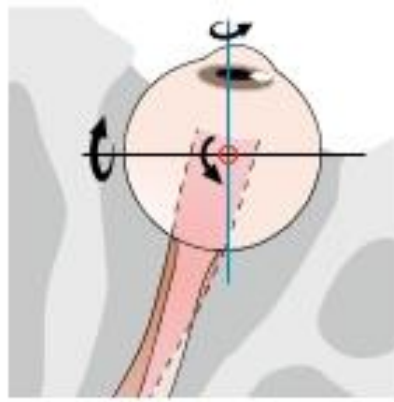
Szemizmok működése



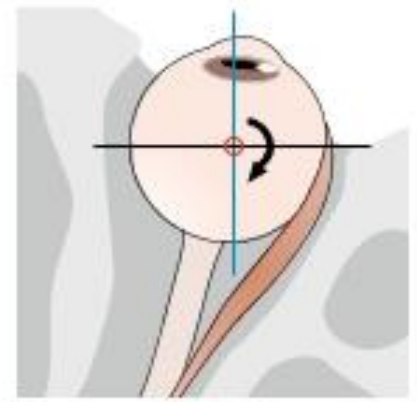
rectus superior



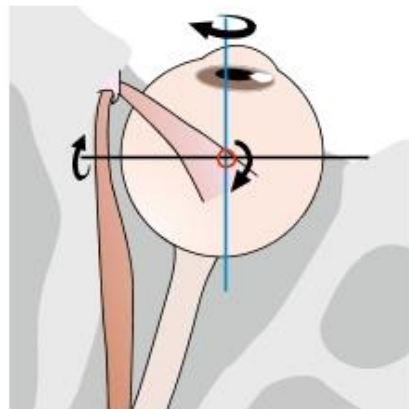
rectus medialis



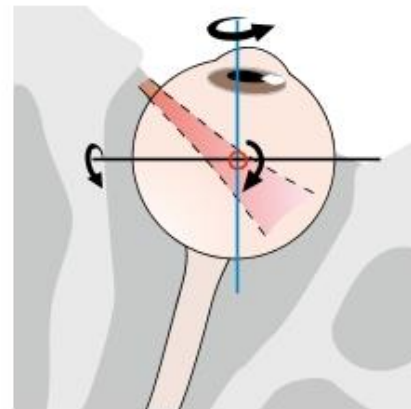
rectus inferior



rectus lateralis

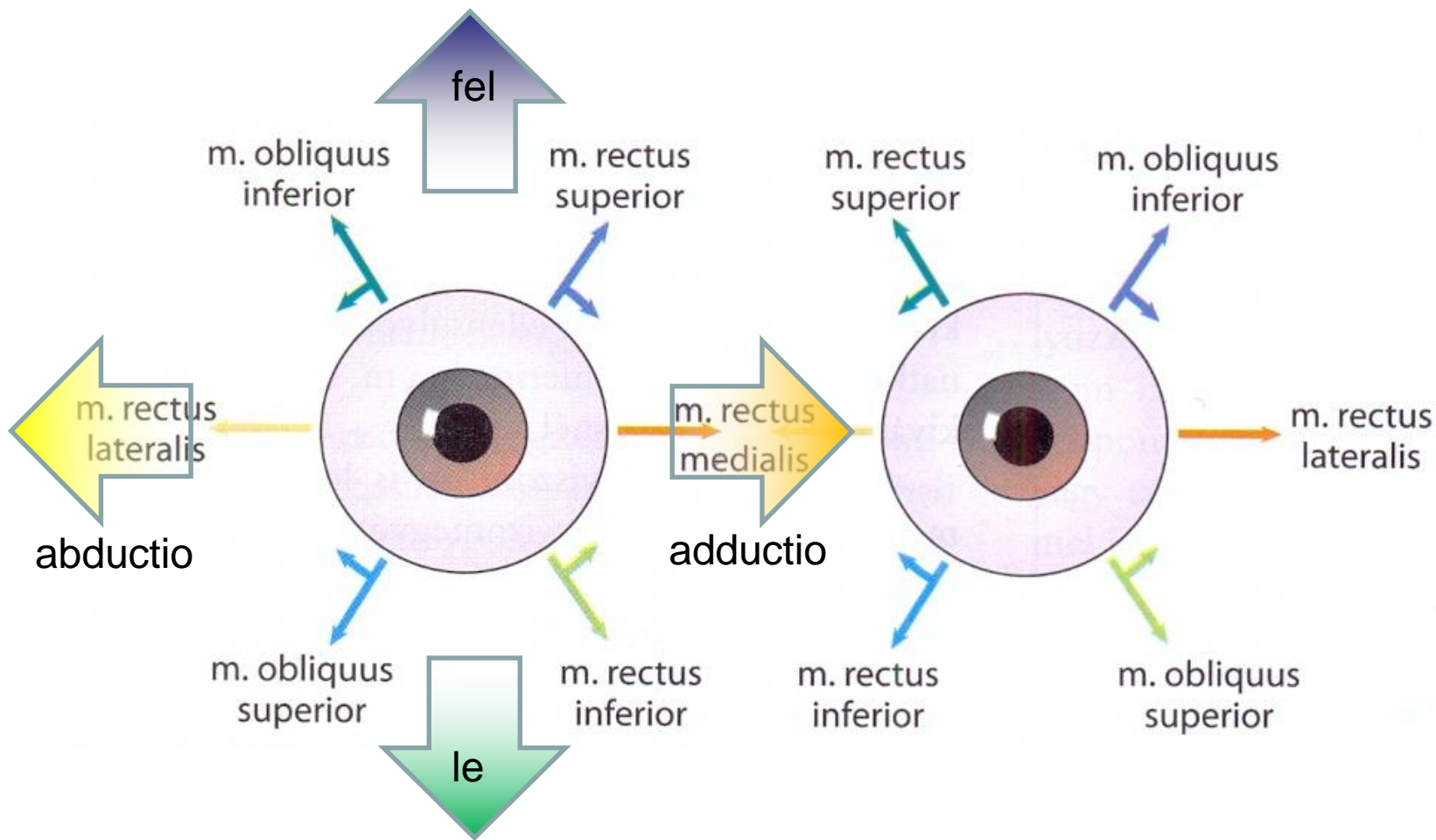


obliquus superior



obliquus inferior

Szemizmok: szinergizmus, antagonizmus



konjugált és konvergens mozgás

Szemmozgások irányítása

Kérgi tekintési központok:

Frontális tekintésközpont (Br8): az akaratlagos szemmozgásokat irányítja.

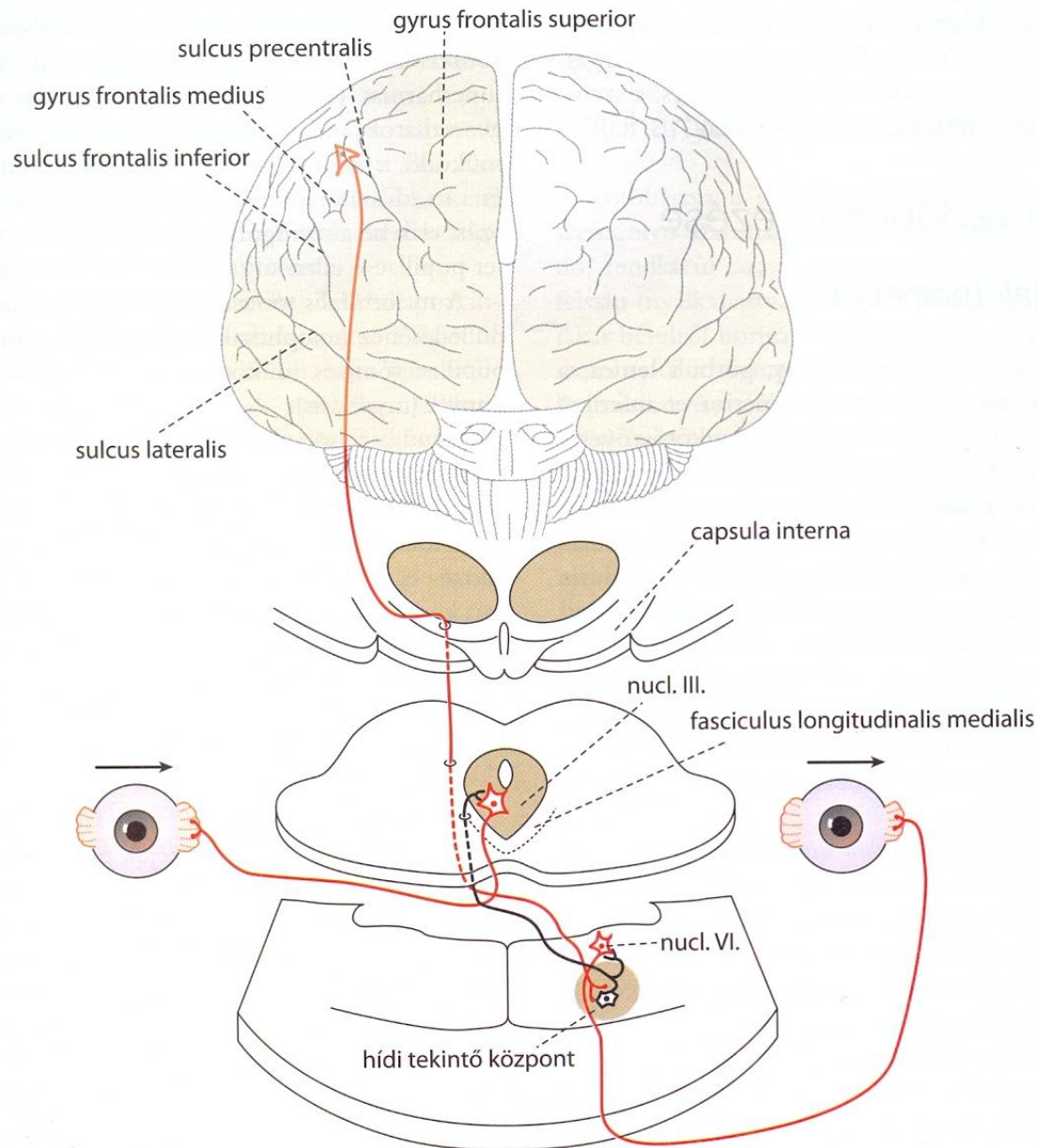
Occipitalis tekintésközpont (Br17, Br18): a reflexes, a spontán kereső és a mozgó tárgyat követő szemmozgásokat irányítja.

Horizontális tekintésközpont: a híd *paramedialis formatio reticularisa*.

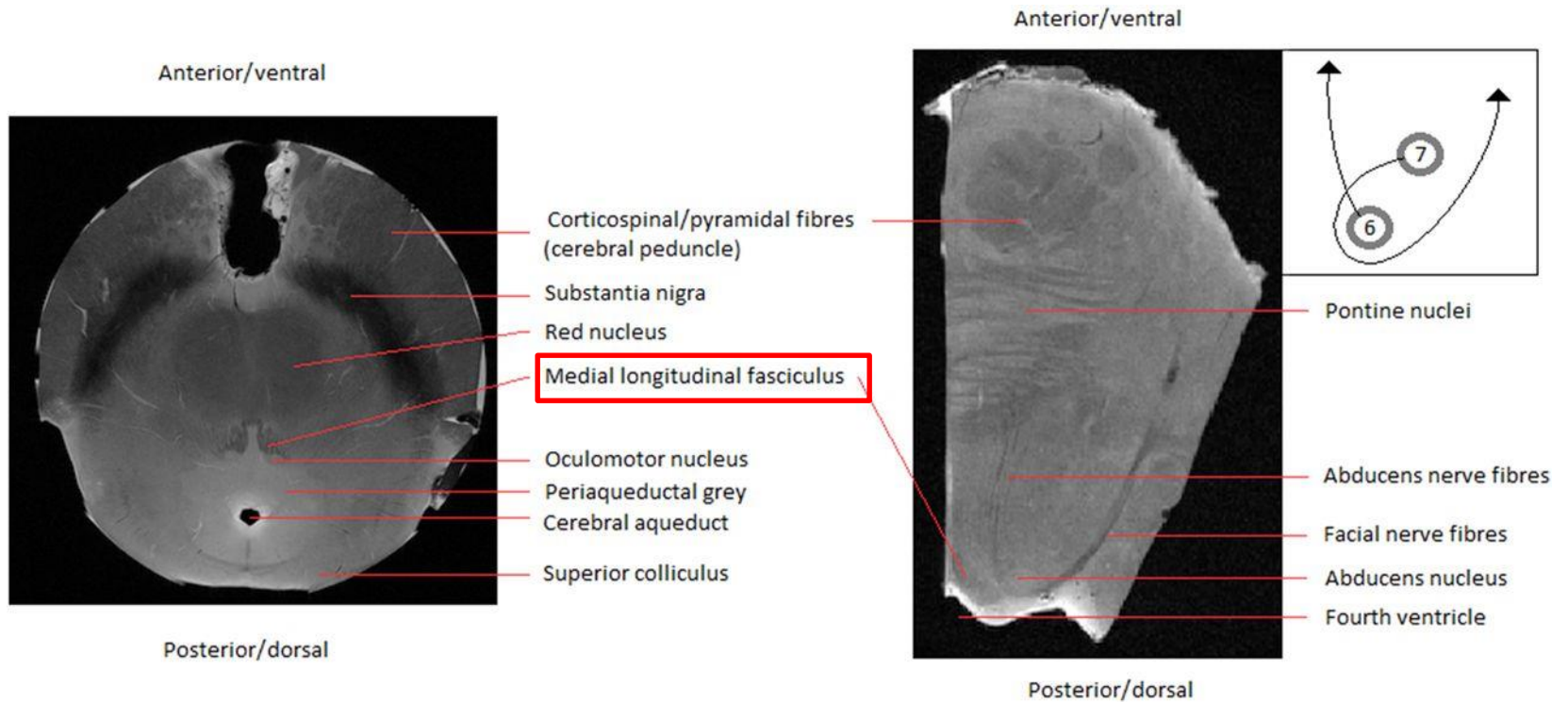
Vertikális tekintésközpont: a középagyban *a nucl. interstitialis Cajal* (= a fasciculus longitudinalis medialis (FLM) rostralis interstitialis magja, *riFLM*).

fasciculus longitudinalis medialis (FLM): összekapcsolja az agytörzsi tekintésközpontokat, szemmozgató agyidegmagokat, *vestibularis magokat*, és a nyakizmok nyaki *gerincvelőben található motoneuronjait*, ezáltal lehetővé teszi pl. a fejmozgásoktól független tekintetfixálást (ebben a tr. vestibulospinalis is résztvesz).

Horizontális tekintés pályái

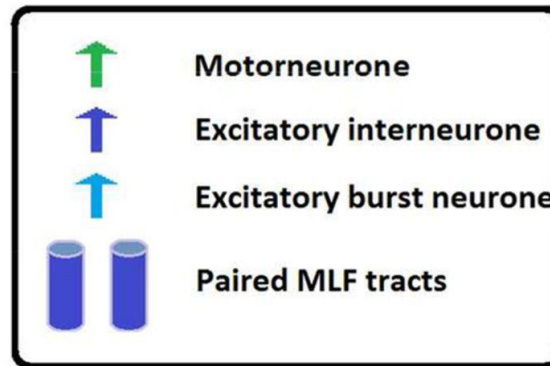
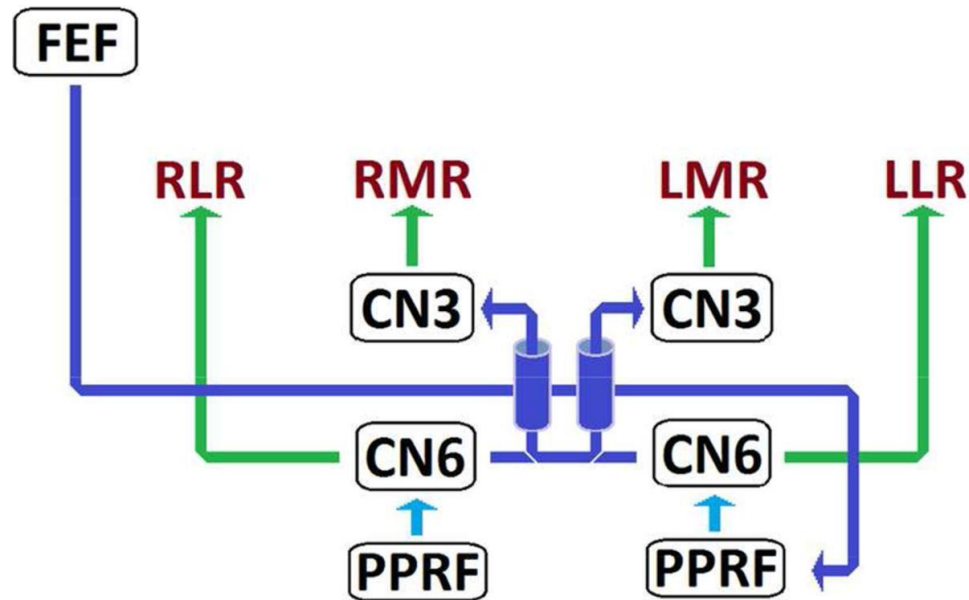


Fasciculus longitudinalis medialis (FLM).



Jonathan D Virgo, and Gordon T Plant Pract Neurol
2017;17:149-153

Horizontal eye movements: anatomy and physiology.



FEF: Frontális tekintésközpont

PPRF: híd paramedialis formatio reticularis

RLR: m. rectus lateralis dexter

RMR: m. rectus medialis dexter

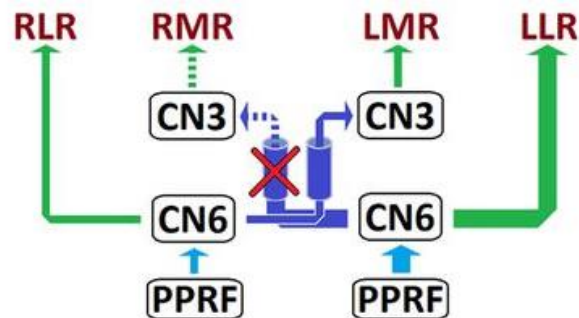
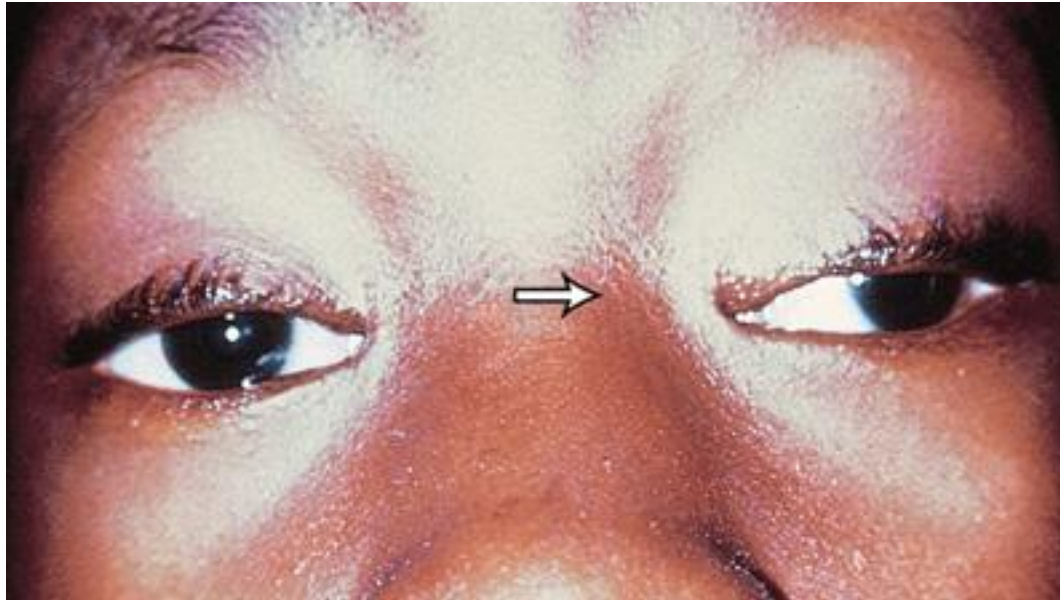
LMR: m. rectus medialis sinister

LLR: m. rectus lateralis sinister

Jonathan D Virgo, and Gordon T Plant Pract Neurol
2017;17:149-153

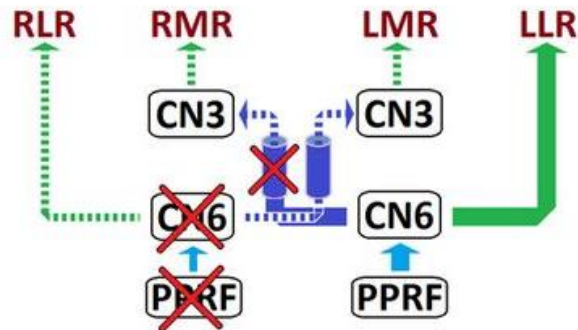
Internuclear ophthalmoplegia

Fasciculus longitudinalis medialis sérülés



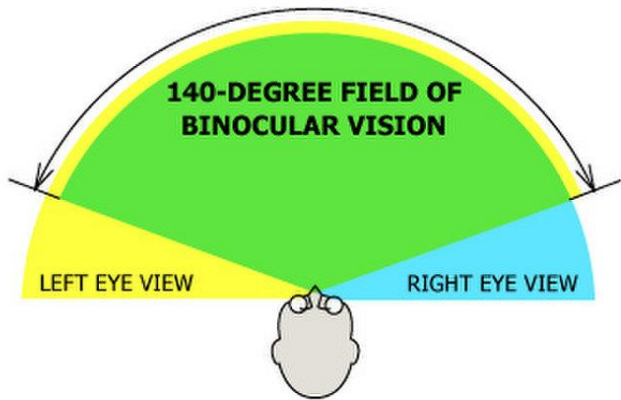
Hídi tekintő mező sérülése

"one-and-a-half" syndrome



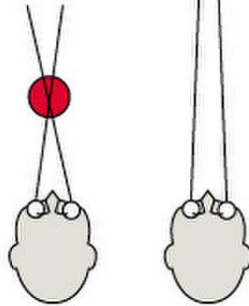
Seeing in 3D

The brain uses several tricks to make us see in three dimensions. Despite our almost 180-degree field of view, binocular vision is only possible in the area where the view from both eyes overlap.

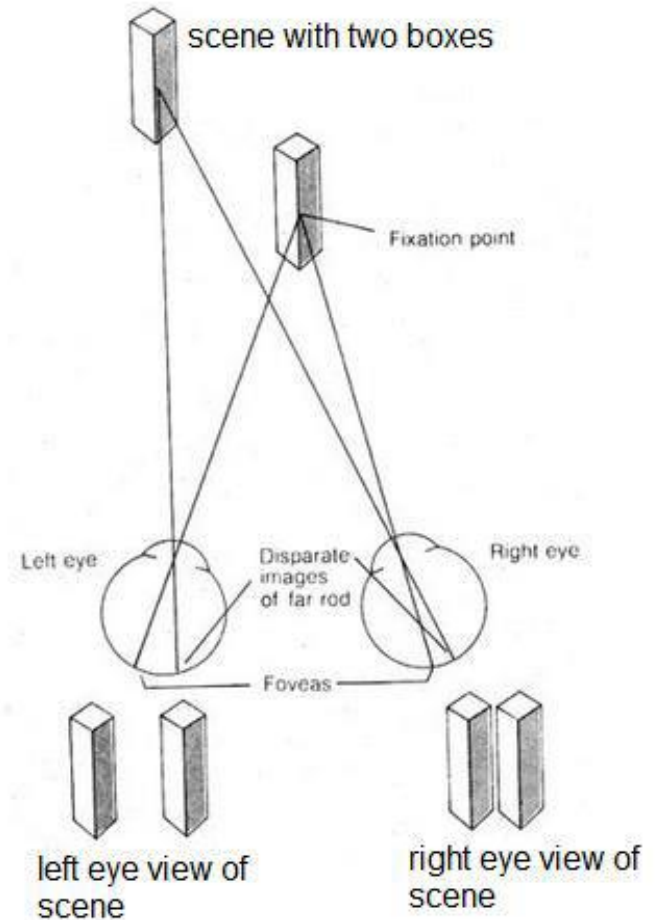
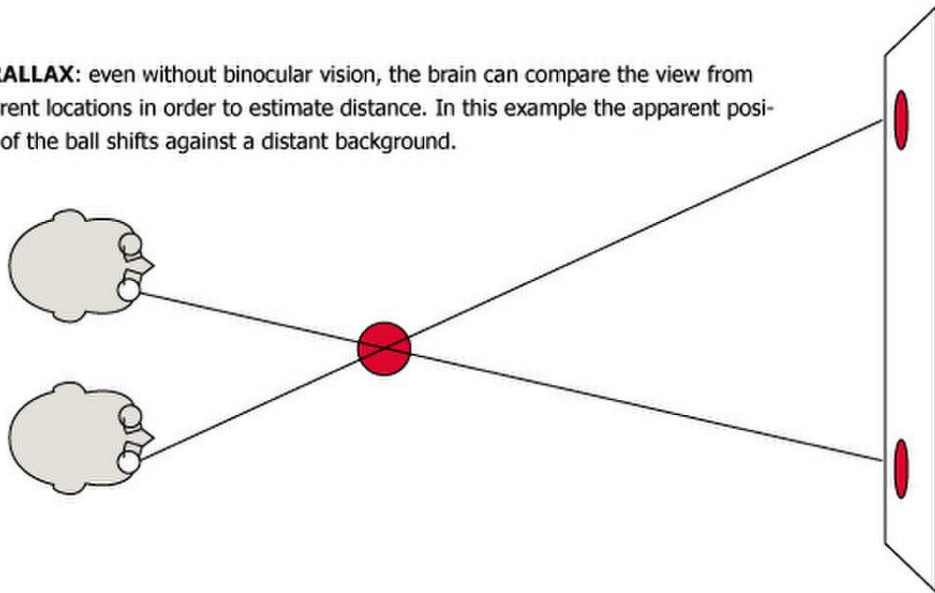


CONVERGENCE:

if an object is nearby, the brain can judge distance by how converged or "crossed" your eyes are.



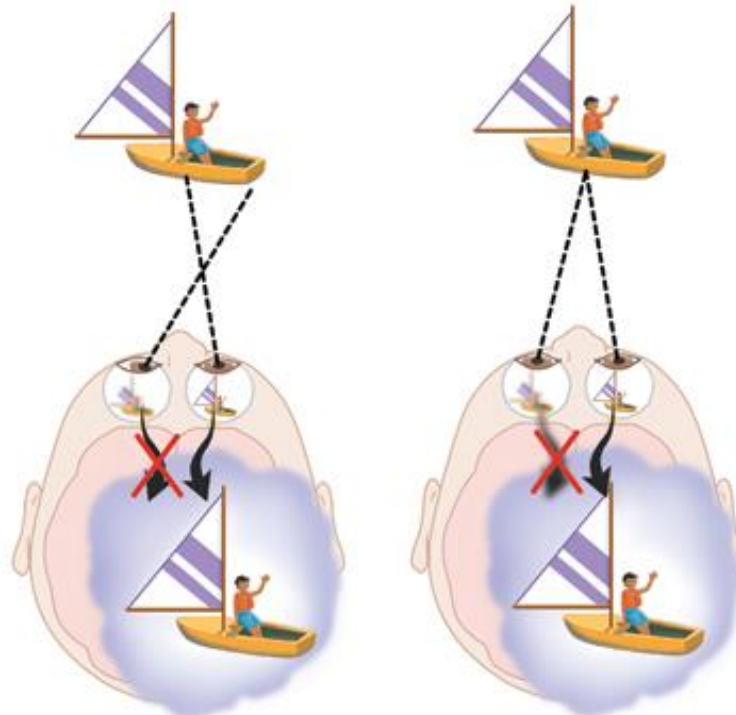
PARALLAX: even without binocular vision, the brain can compare the view from different locations in order to estimate distance. In this example the apparent position of the ball shifts against a distant background.



Strabismus

(kancsalság,
szemtengelyferdülés)

Lazy eye
(several causes)



Eyes are not aligned, brain receives pictures it can't fuse together, one of the pictures is suppressed

One eye has poor vision, brain receives a blurry picture from that eye, the blurry picture is suppressed



Köszönöm a figyemet

