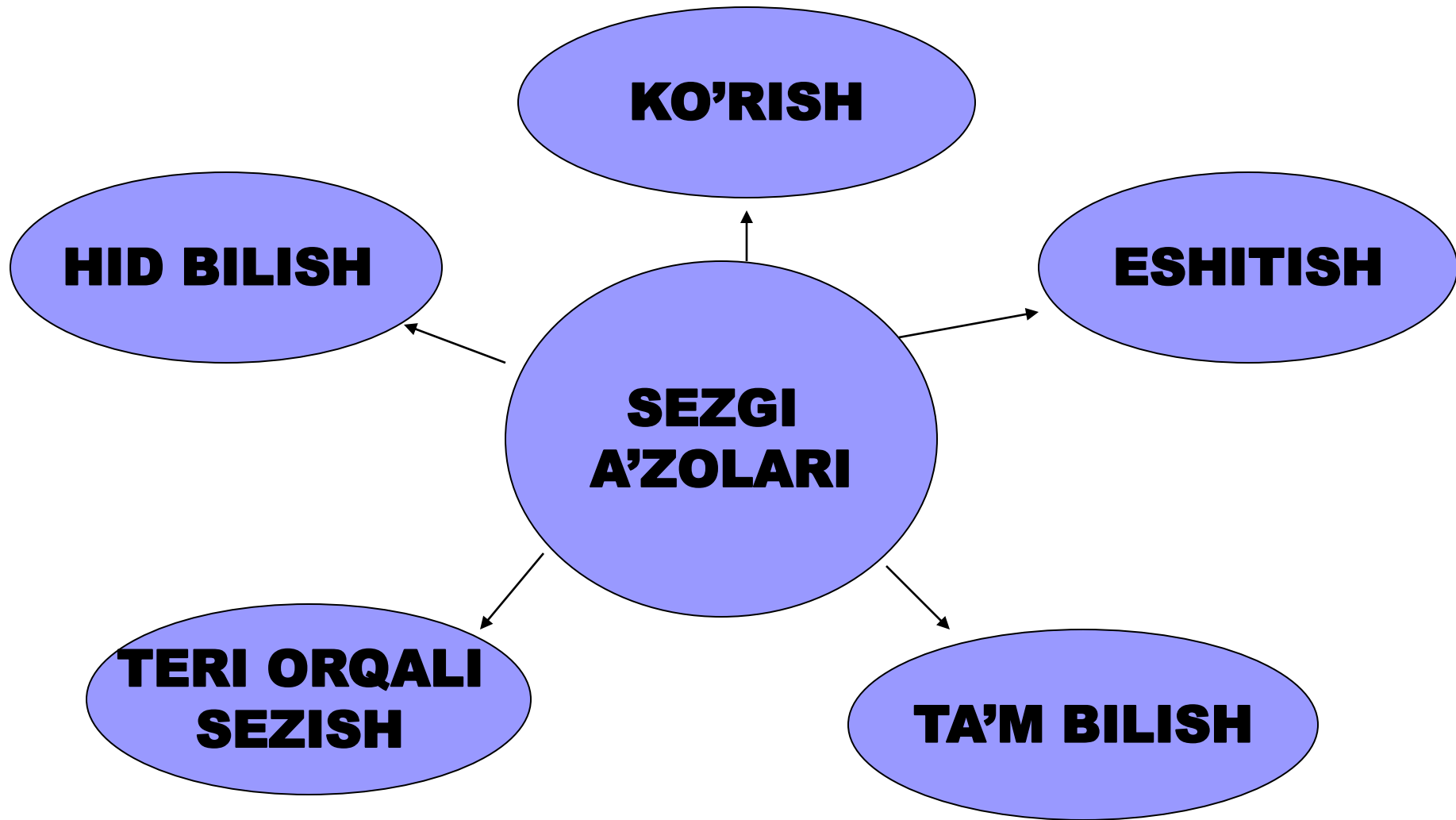




KO'RISH ANALIZATORI

■ Reja:

- **1. Sezgi a'zolarining tuzilishi**
- **Ko'rish a'zosining taraqqiyoti**
- **Ko'rish analizatori**
- **Ko'zning tuzilishi**
- **Ko'z gavhari, yordamchi apparatlari**
- **Ko'zning nur singdiruvchi apparatlari**
- **Teri analizatorlari.**
- **Tayanch iboralar:** fibroz qavati, tomirli parda, akkomodatsiya, tayoqchalar, pigment, shishasimon tana.



ANALIZATOR 3 qismdan iborat:

- RETSEPTOR –

ta'sirotni qabul qiluvchi qism

- SEZUVCHI NERV TOLASI-

o'tkazuvchi qism

- NERV MARKAZI-

analiz-sintez qiluvchi qism

KO'RISH ANALIZATORI-

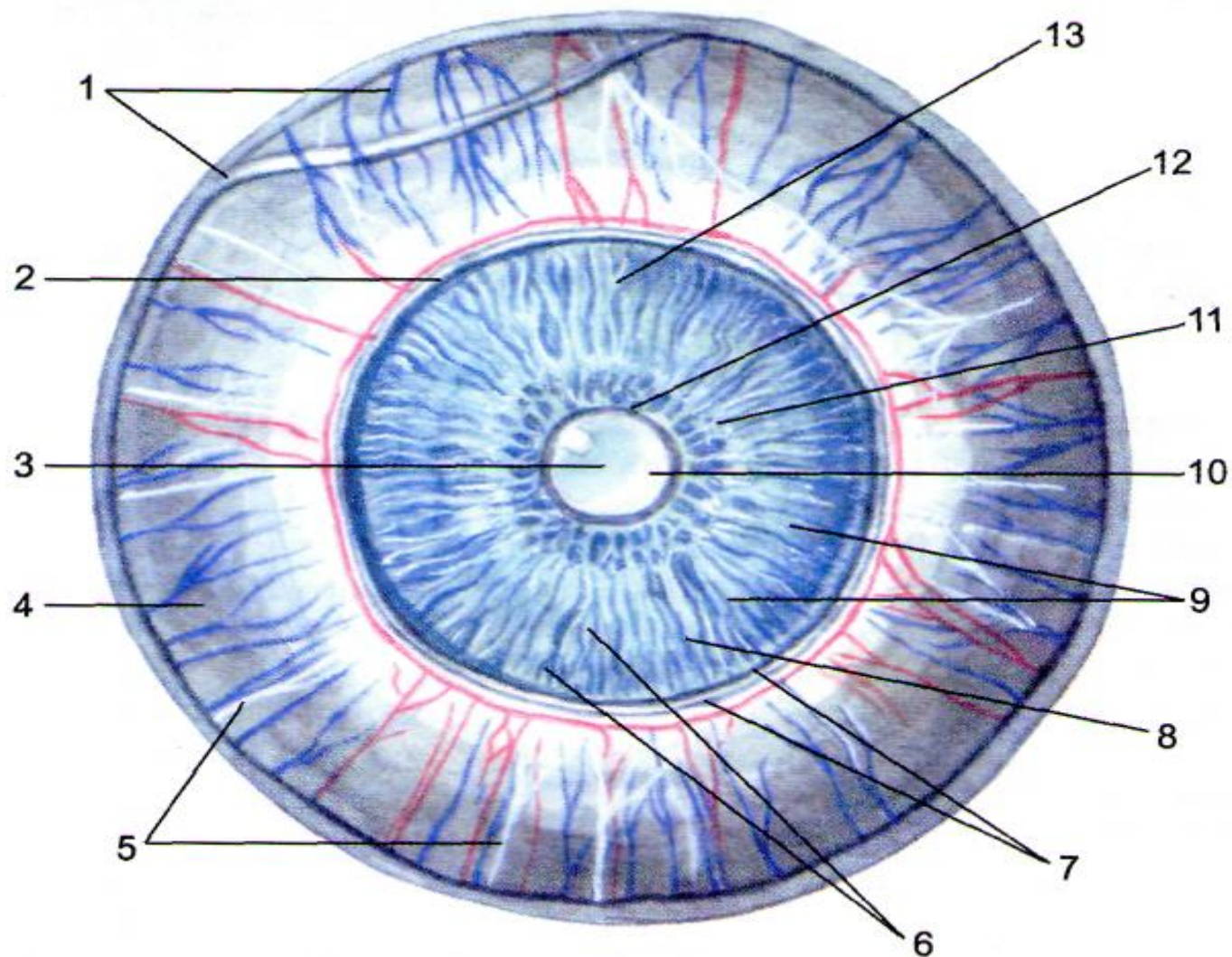
- *1. Ko'rish retseptorlari.*
- *2. Ko'rish nervi.*
- *3. Bosh miya katta yarim sharlari p'ostlog'ining ensa qismidagi ko'rish markazi.*

Homila taraqqiyotining 2 oyi boshlarida birinchi miya pufagining yon devorida bir juft o'simta ko'z pufagi paydo bo'ladi. Uning uchi kengayib ektodermaga qarab o'sadi. Miyaga qo'shilgan oyoqlari torayib ko'ruv nervini hosil qiladi. Taraqqiyotning keyingi oylarida ko'z pufagining oldingi devori ichkariga botib kirib ikki qavatli ko'z jomini hosil qiladi. Jomning tashqi devori keyinchalik to'r pardaning tashqi pigmentli qismiga, ichki devori esa yorug'lik sezuvchi qismiga aylanadi. Shu davrda ko'z jomi oldida turgan ektoderma avval qalinlashadi, keyin unda gavhar chuqurchasi paydo bo'lib, gavhar pufagiga aylanadi.

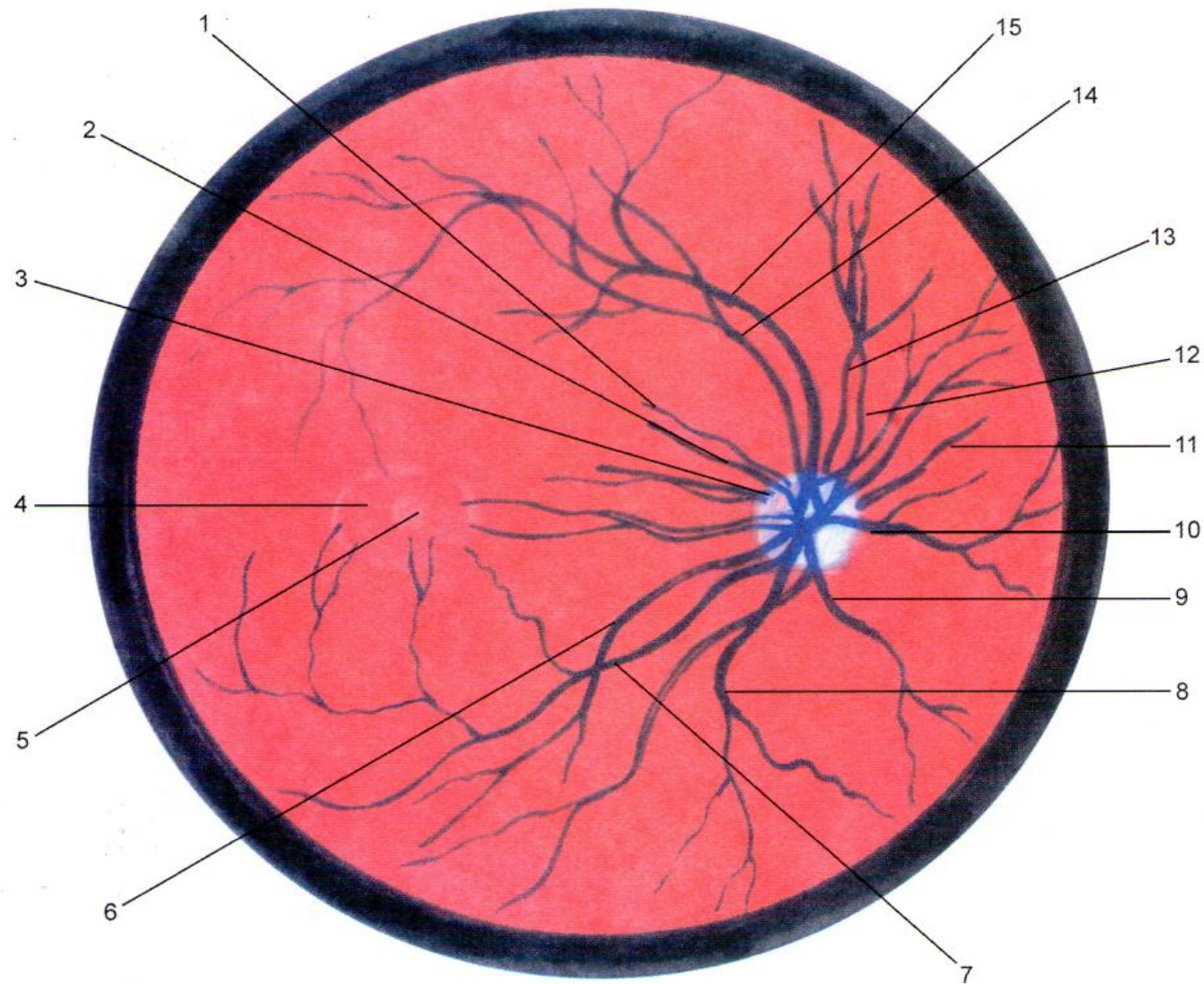
Adolf Faller., Michael Schuenke-The Human Body - "An Introduction to Structure and Function" ThiemeStuttgart · New York
<http://www.bestmedbook.com/628>

The bulb of the eye(bulbus oculi; eyeball), or organ of sight,is contained in the cavity of the orbit, where it is protected from injury and moved by the ocular muscles. Associated with it are certain accessory structures, viz., the muscles, fasciæ, eyebrows, eyelids, conjunctiva, and lacrimal apparatus.The bulb of the eye is imbedded in the fat of the orbit, but is separated from it by a thin membranous sac, the fascia bulbi. It is composed of segments of two spheres of different sizes. The anterior segment is one of a small sphere; it is transparent, and forms about one-sixth of the bulb. It is more prominent than the posterior segment, which is one of a larger sphere, and is opaque, and forms about five-sixths of the bulb.

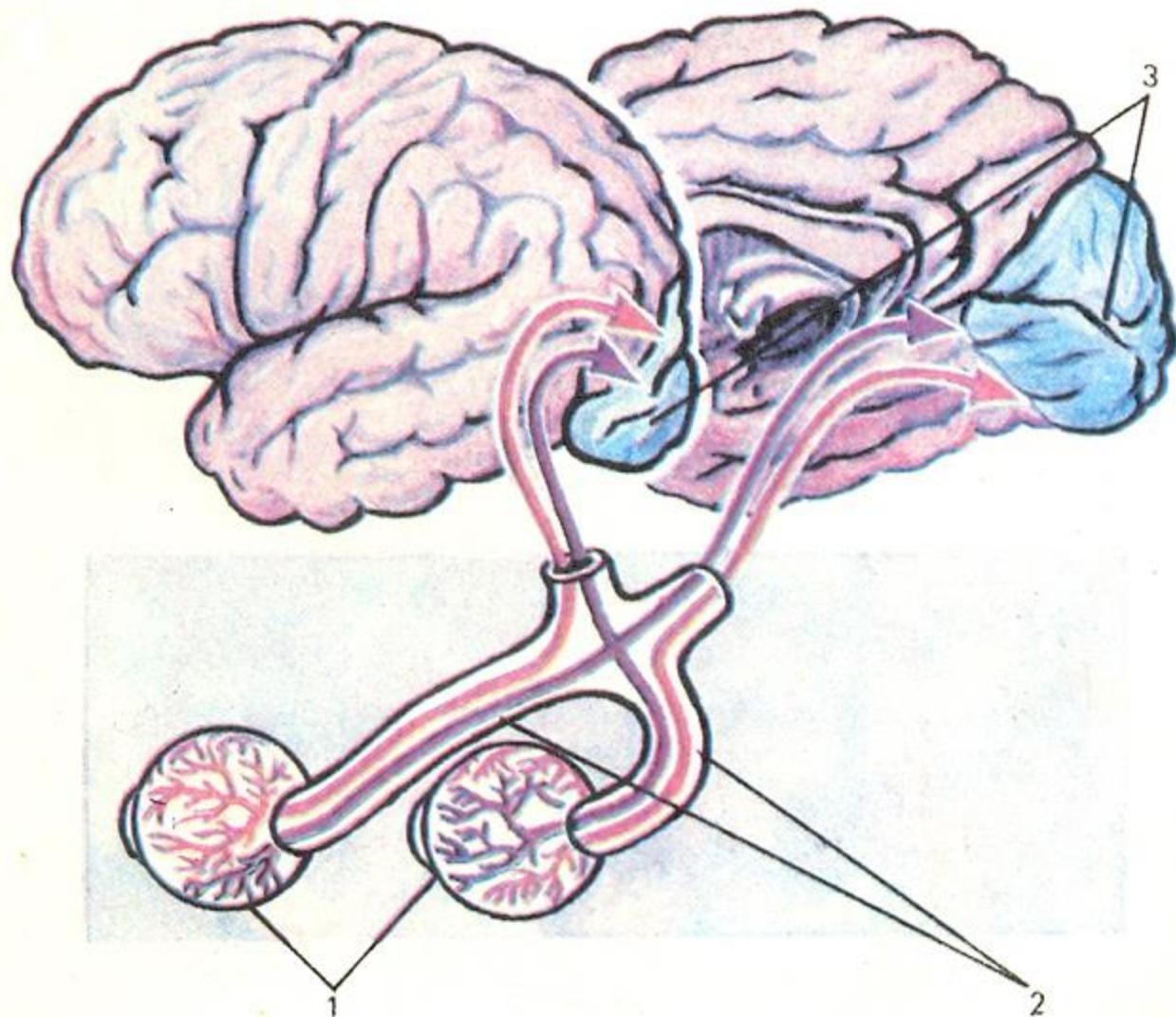
Кўзнинг ўрта томирли пардаси



Кўз туби ёки орқа томони

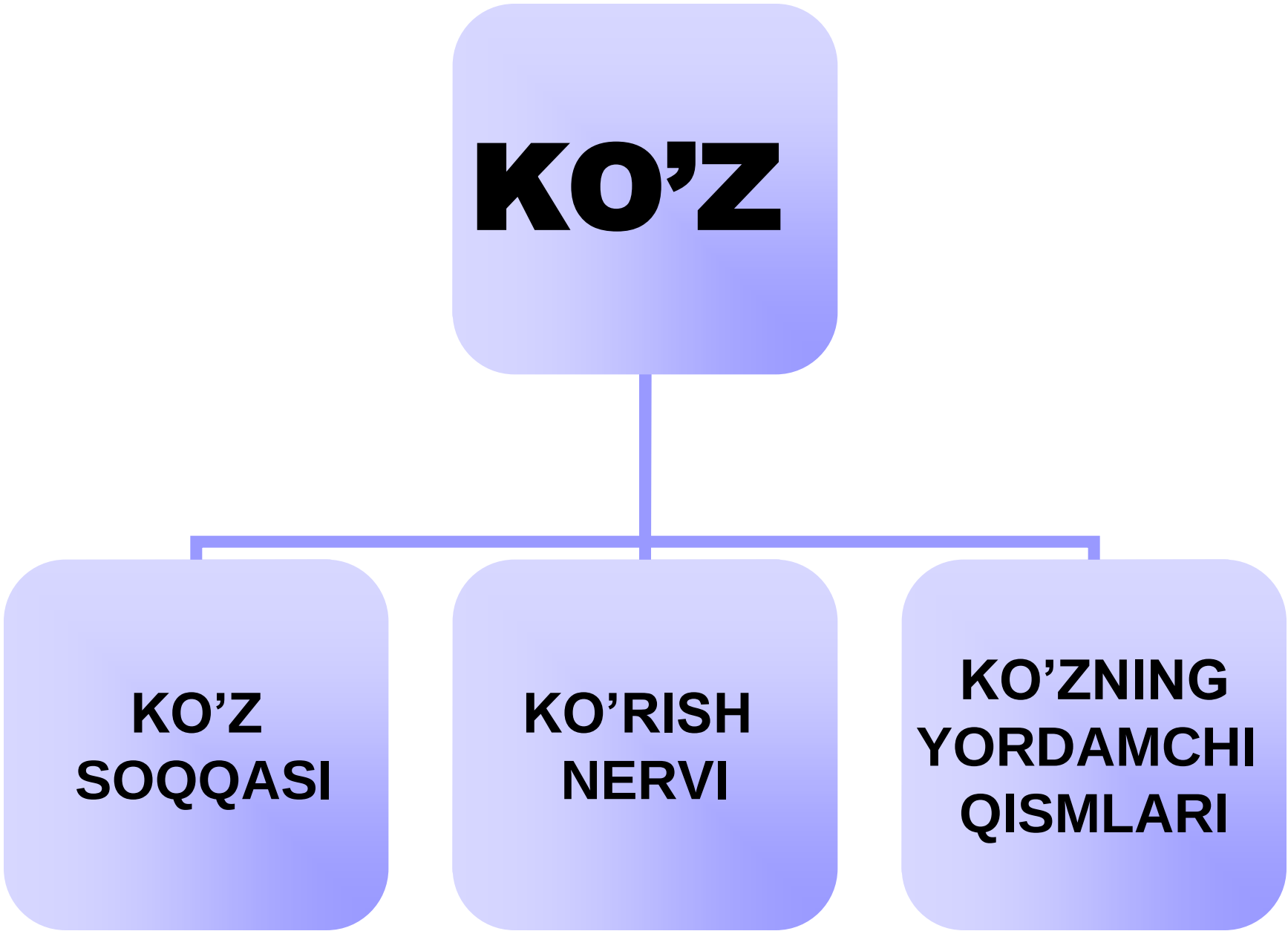


Ko'rish analizatori





KO'Z



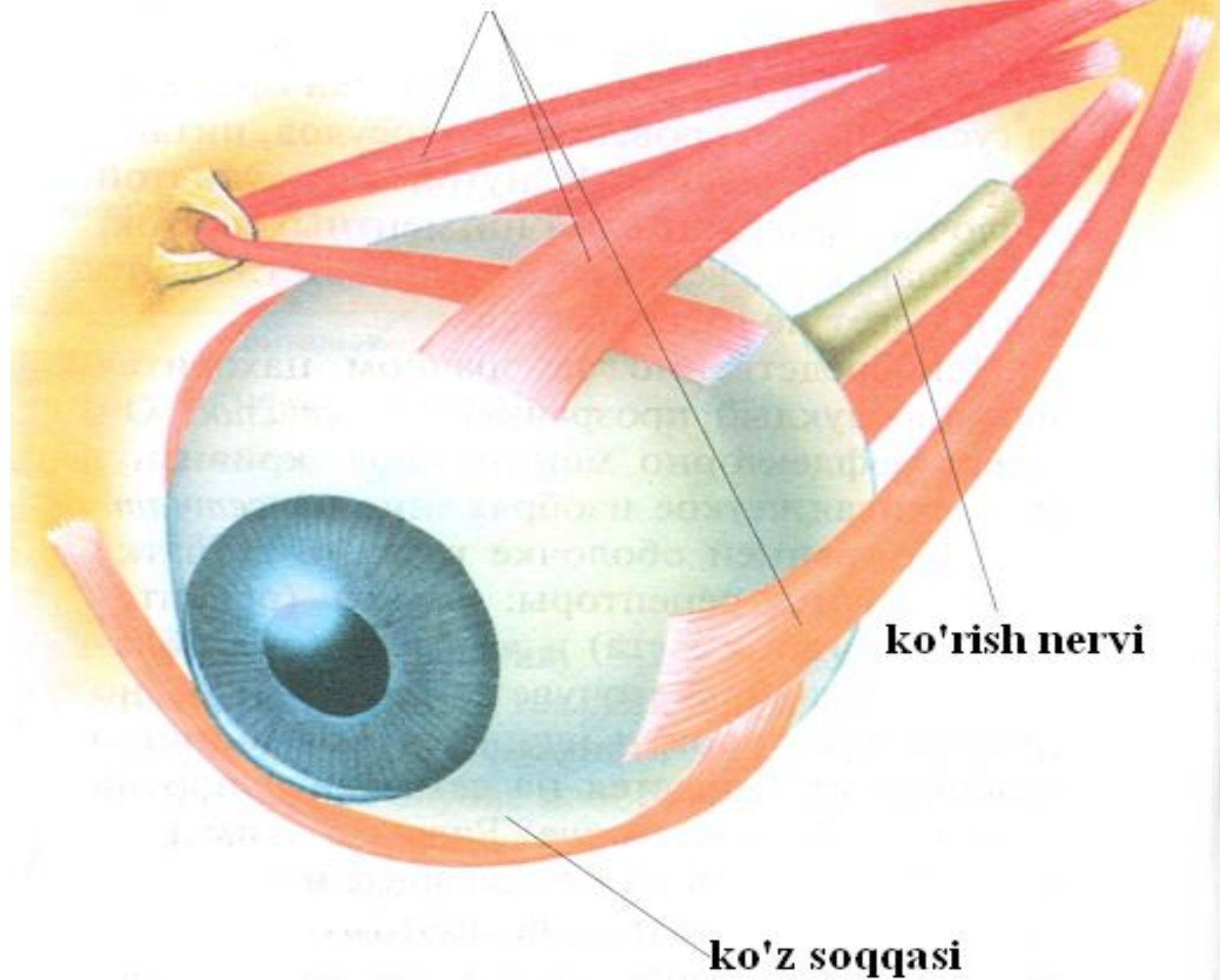
```
graph TD; A[KO'Z] --- B[KO'Z SOQQASI]; A --- C[KO'RISH NERVI]; A --- D[KO'ZNING YORDAMCHI QISMLARI]
```

**KO'Z
SOQQASI**

**KO'RISH
NERVI**

**KO'ZNING
YORDAMCHI
QISMLARI**

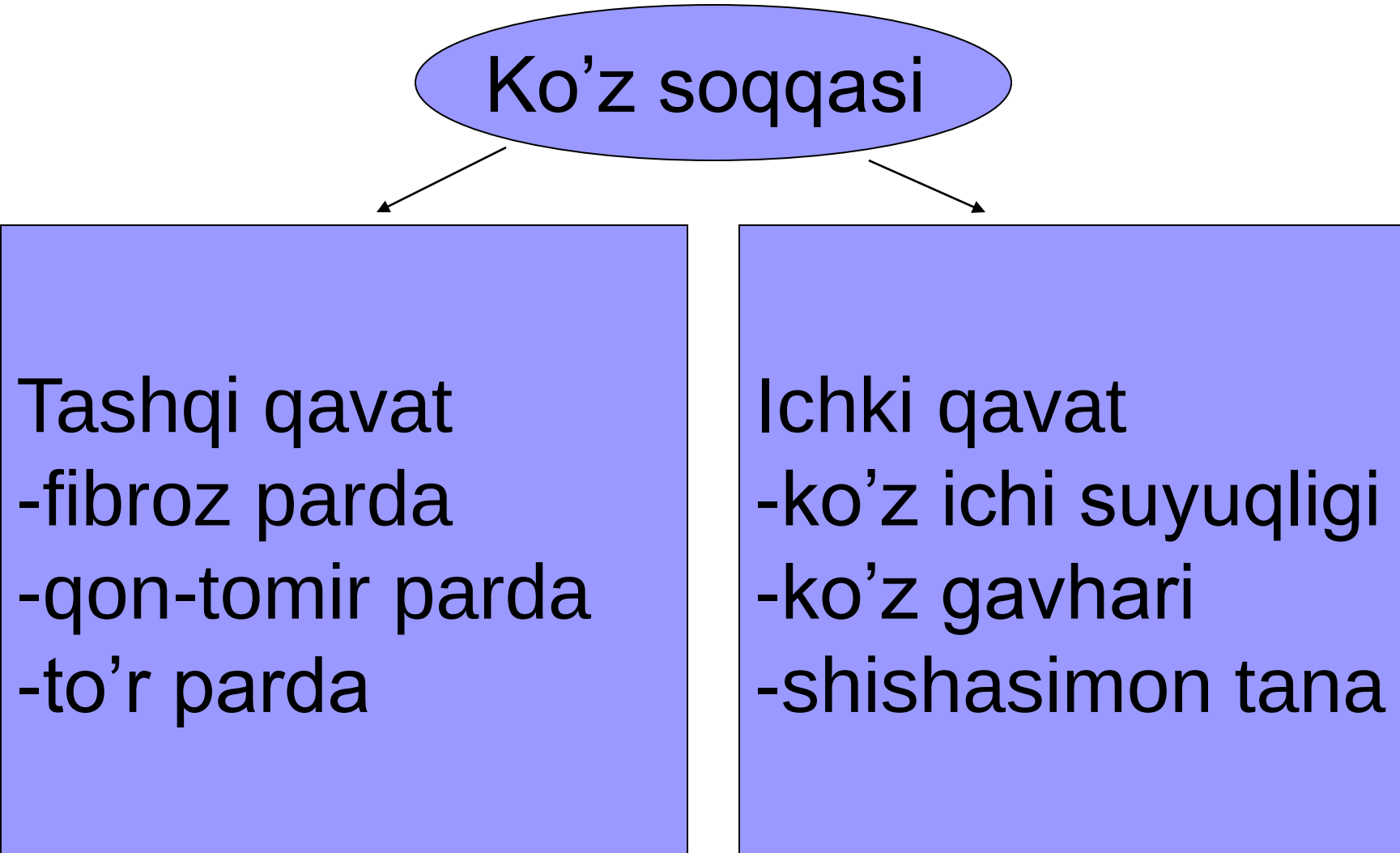
**ko'z soqqasini
harakatlantiruvchi muskullar**







Ko'z soqqasi



```
graph TD; A([Ko'z soqqasi]) --> B[Tashqi qavat]; A --> C[Ichki qavat]; B --> B1[-fibroz parda]; B --> B2[-qon-tomir parda]; B --> B3[-to'r parda]; C --> C1[-ko'z ichi suyuqligi]; C --> C2[-ko'z gavhari]; C --> C3[-shishasimon tana];
```

Tashqi qavat

-fibroz parda

-qon-tomir parda

-to'r parda

Ichki qavat

-ko'z ichi suyuqligi

-ko'z gavhari

-shishasimon tana

KO'Z SOQQASI

tashqi qavat

- **1. fibroz parda**

old tomoni - shox parda

yon, orqa tomoni - oq parda

- **2. qon- tomir parda**

old tomoni -rangli parda

yon, orqa tomoni qon-tomir
parda

- **3. to'r parda**

tayoqchasimon retseptorlar

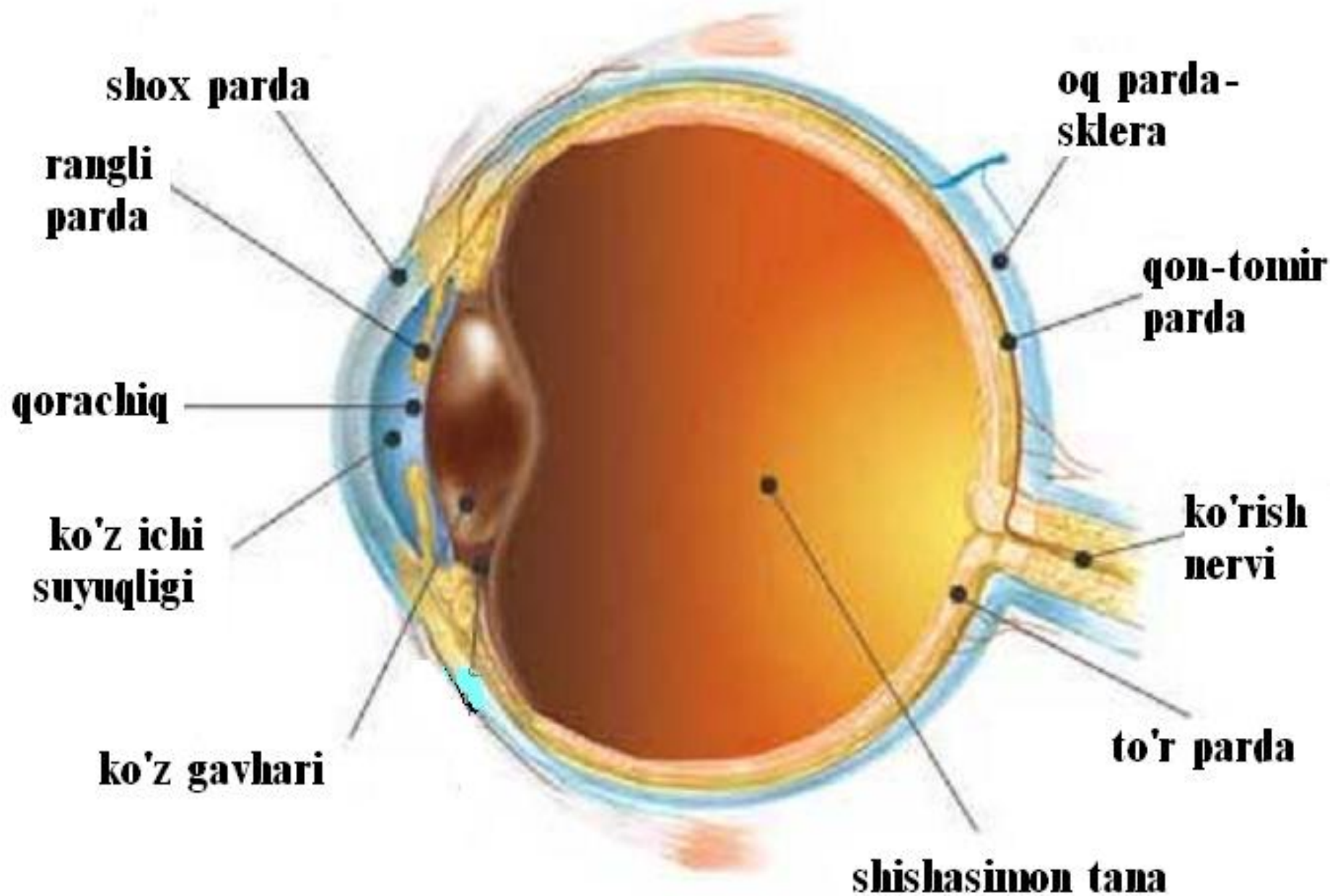
kolbachasimon retseptorlar

ichki qavat

- **1. ko'z ichi suyuqligi**

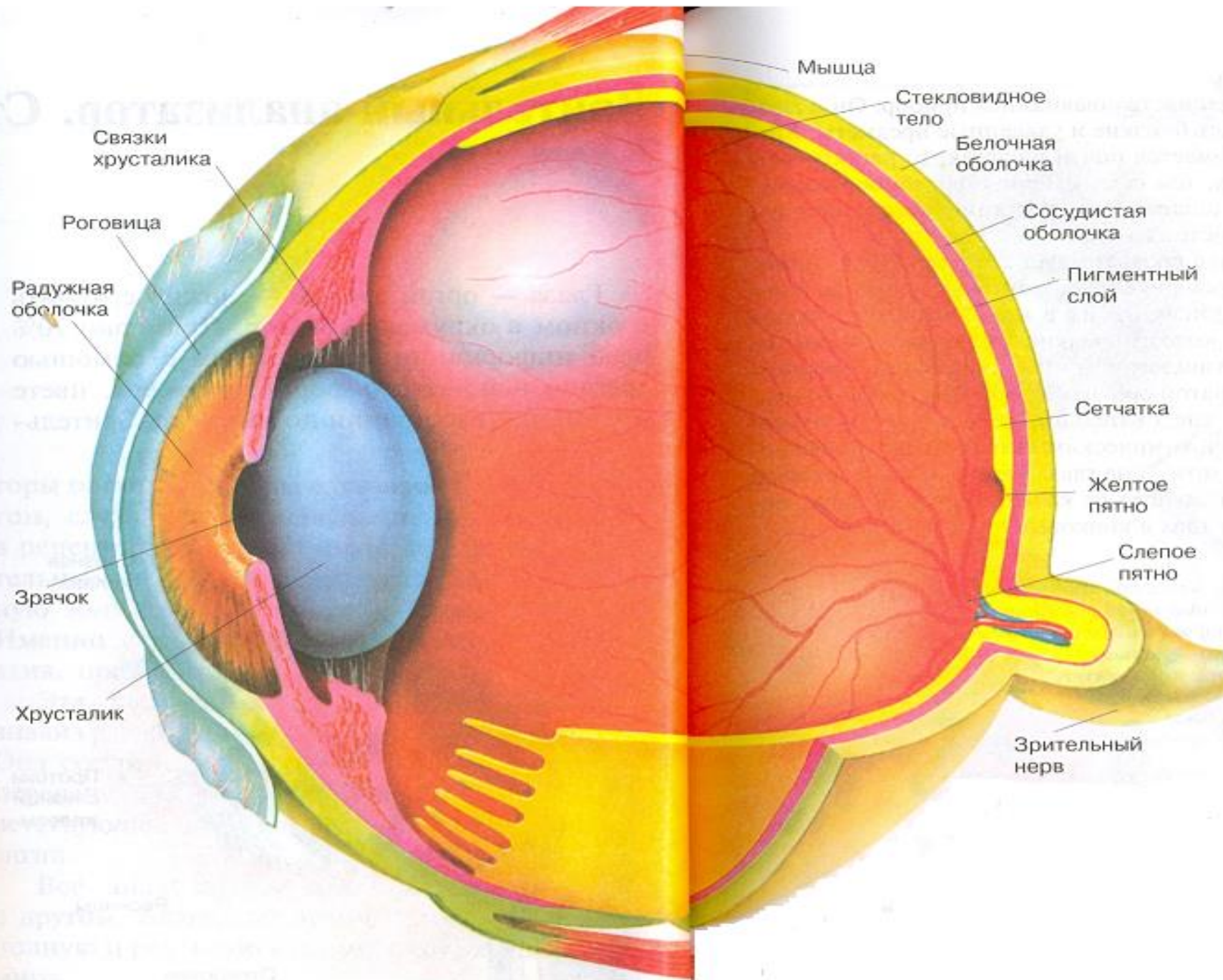
- **2. ko'z gavhari**

- **3. shishasimon tana**



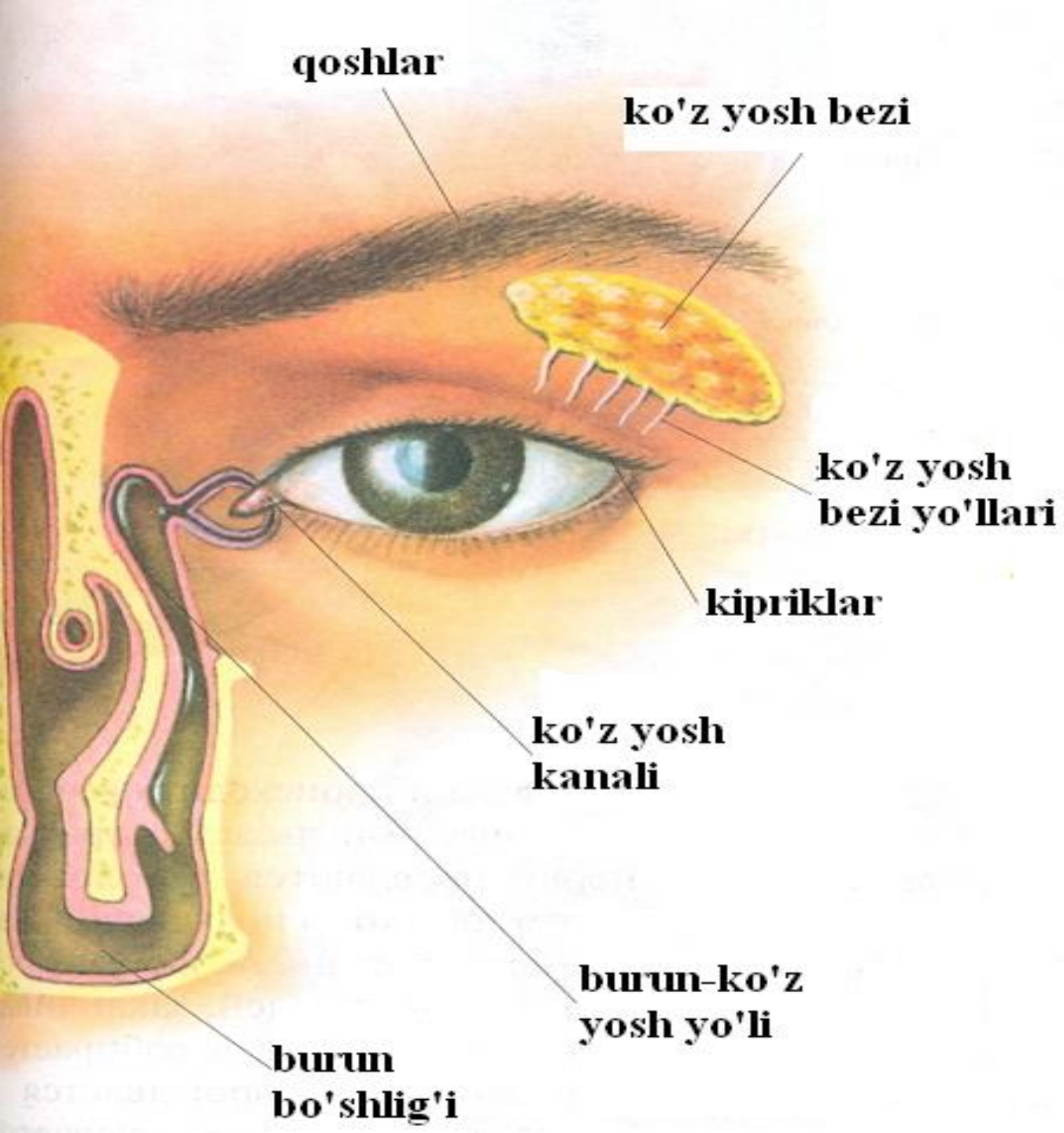


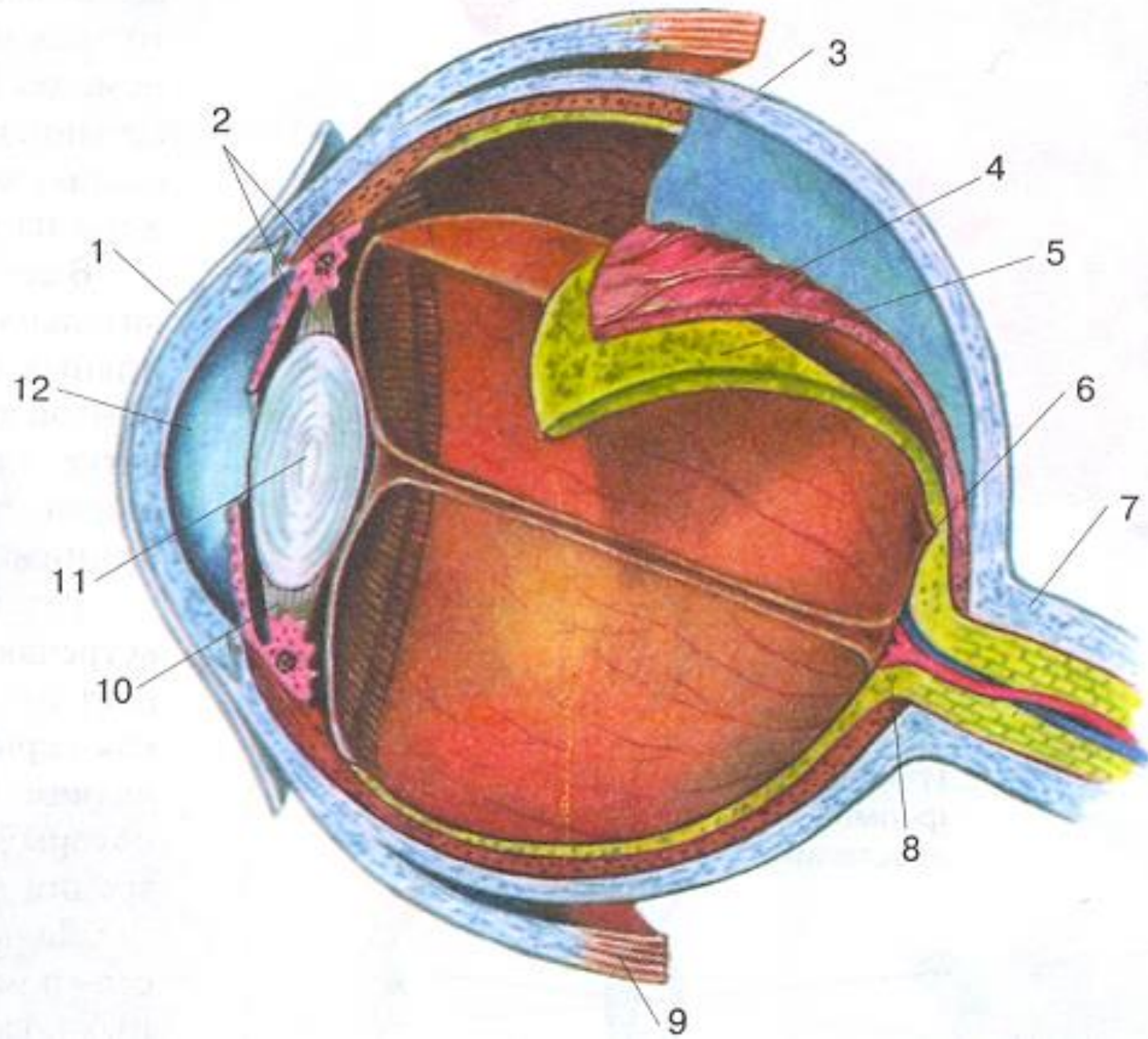
The Sclera.—The sclera has received its name from its extreme density and hardness; it is a firm, unyielding membrane, serving to maintain the form of the bulb. It is much thicker behind than in front; the thickness of its posterior part is 1 mm. Its external surface is of white color, and is in contact with the inner surface of the fascia of the bulb; it is quite smooth, except at the points where the Recti and Obliqui are inserted into it; its anterior part is covered by the conjunctival membrane. Its inner surface is brown in color and marked by grooves, in which the ciliary nerves and vessels are lodged; it is separated from the outer surface of the choroid by an extensive lymph space (*spatium perichorioideale*) which is traversed by an exceedingly fine cellular tissue, the *lamina suprachorioidea*. Behind it is pierced by the optic nerve, and is continuous through the fibrous sheath of this nerve with the *dura mater*.



Ko'zning yordamchi qismlari

- -ko'z soqqasini harakatlantiruvchi muskullar
- -ularning nervlari
- -qovoqlar
- -kipriklar
- -ko'z yosh bezlar
- -qon tomirlar

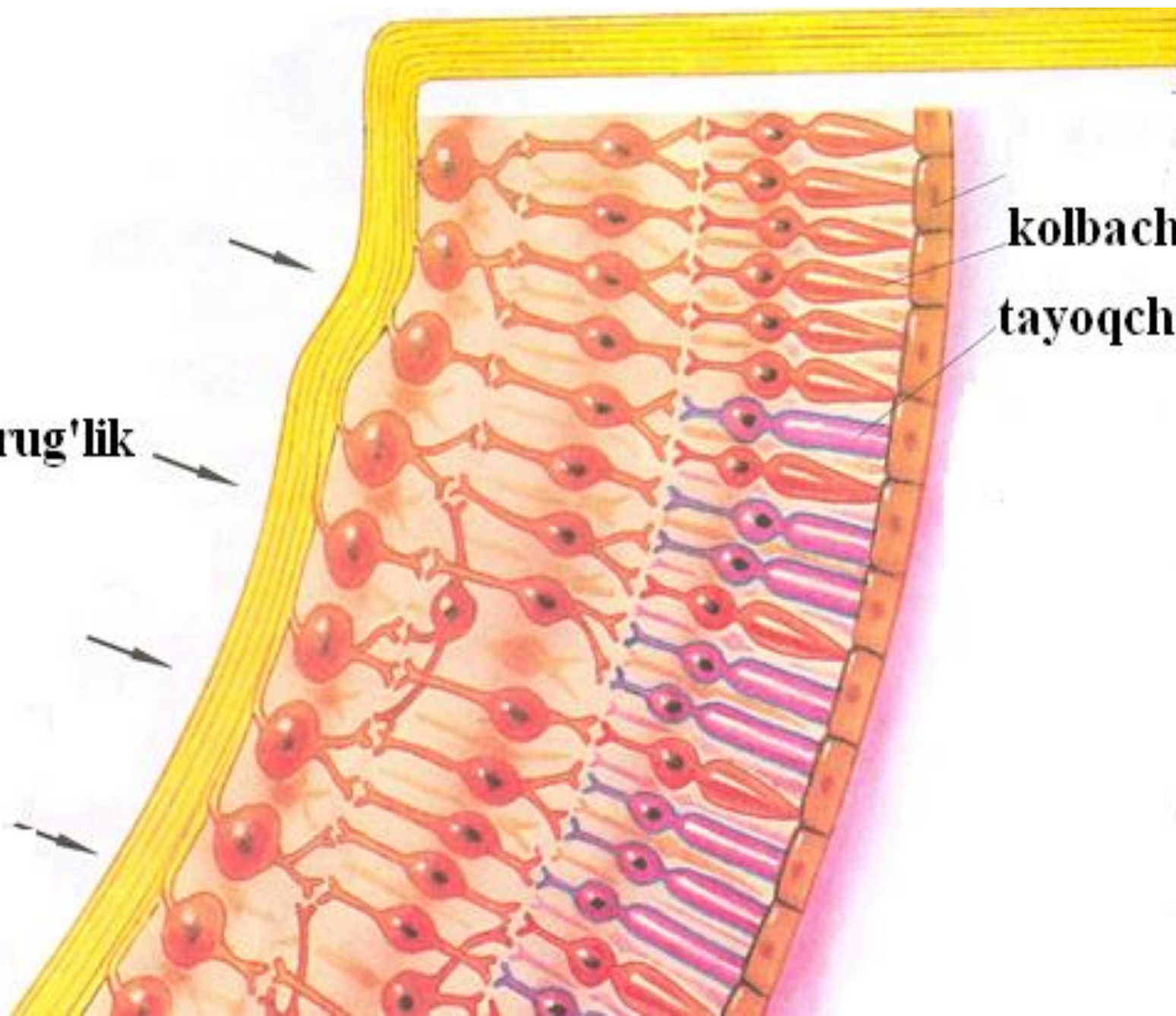


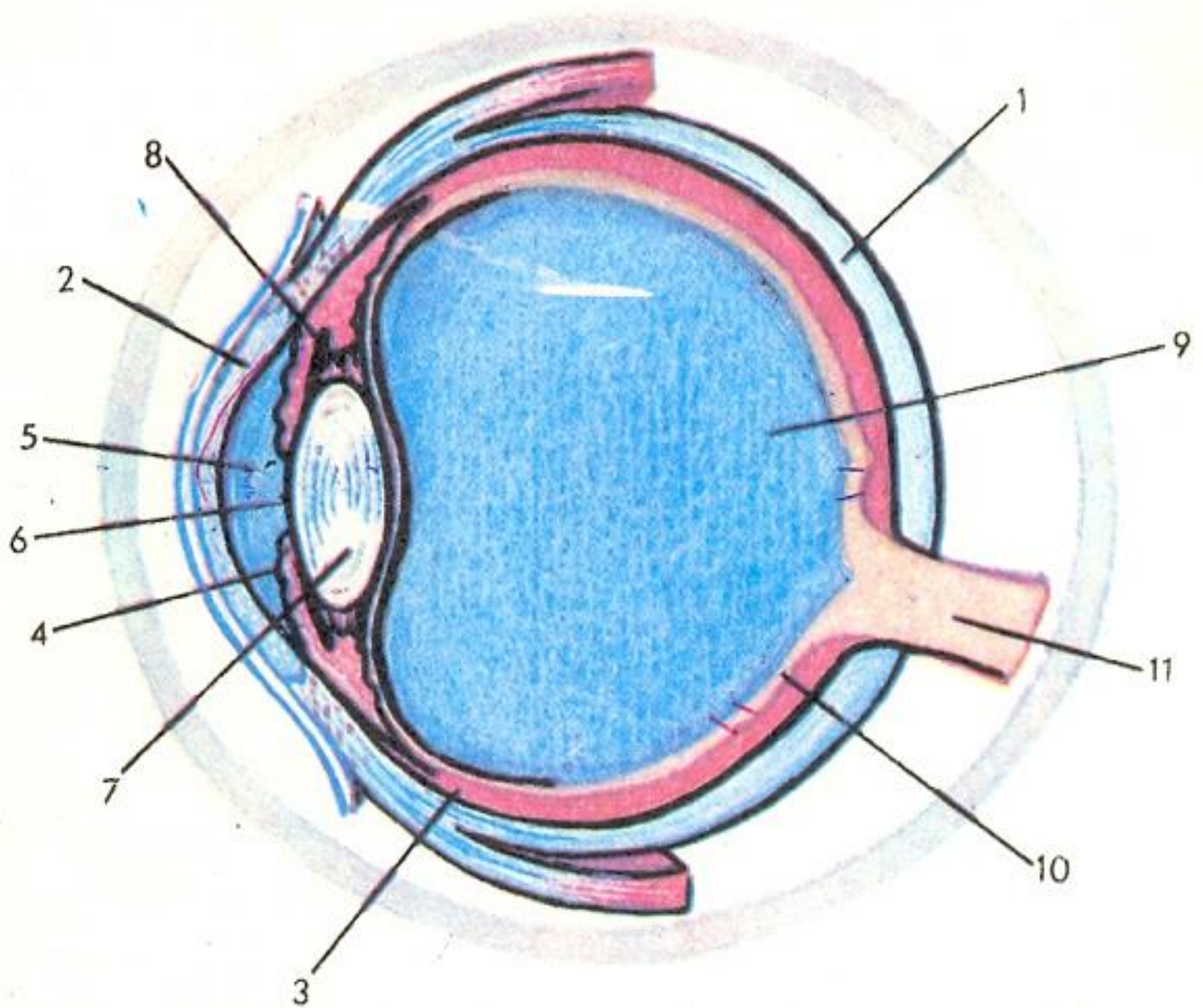


yorug'lik

kolbachalar

tayoqchalar





- 
- **Ko'z gavharining funksiyasi-**
yorug'likni sindirib o'tkazish.
 - Yaqindagi buyumlarga qaraganda
ko'z gavhari qabariqlashadi.
 - Uzoqdagi buyumlarga qaraganda
gavhar yassilashadi.
 - Gavharning bunday xususiyati
akkomodatsiya deyiladi.

Ko'z gavhari akkomodatsiyasi



- Uzoqdagi buyumga qaraganda ko'z gavhari yassilashadi

- Yaqindagi buyumga qaraganda ko'z gavhari qabariqlashadi

- 
- **Qorachiq-** ko'zning rangli pardasi o'rtasidagi teshikcha.
 - U ko'zning ichkarisiga yorug'lik kirishini boshqaradi.
 - Yaxshi yoritilmagan sharoitda qorachiq kengayadi.

- **Ko'rish o'tkirligi** – ikki nuqtani bir-biriga qo'shilib ketmasdan alohida ko'rish uchun zarur bo'lgan minimum masofa bilan belgilanadi.
- Normal ko'rish o'tkirligiga ega odam 60 sekund burchak hosil qilib joylashgan ikkita buyumni aniq ko'radi.
- Ko'rish o'tkirligi **Golovin jadvali** yordamida aniqlanadi.

- 
- **. Ko'rish maydoni - ko'zni harakatlantirmay turib atrofdagi buyumlarni, ularning rangini ko'ra olish xususiyati.**

Ko'rish mavdoni



СОВА



ОВСЯНКА



ВАЛЬДШНЕП



■ **Ko'rish organi funksiyasining buzilishi**

■ **Ko'z kasalliklarini o'rganuvchi fan oftalmologiya deyiladi.**

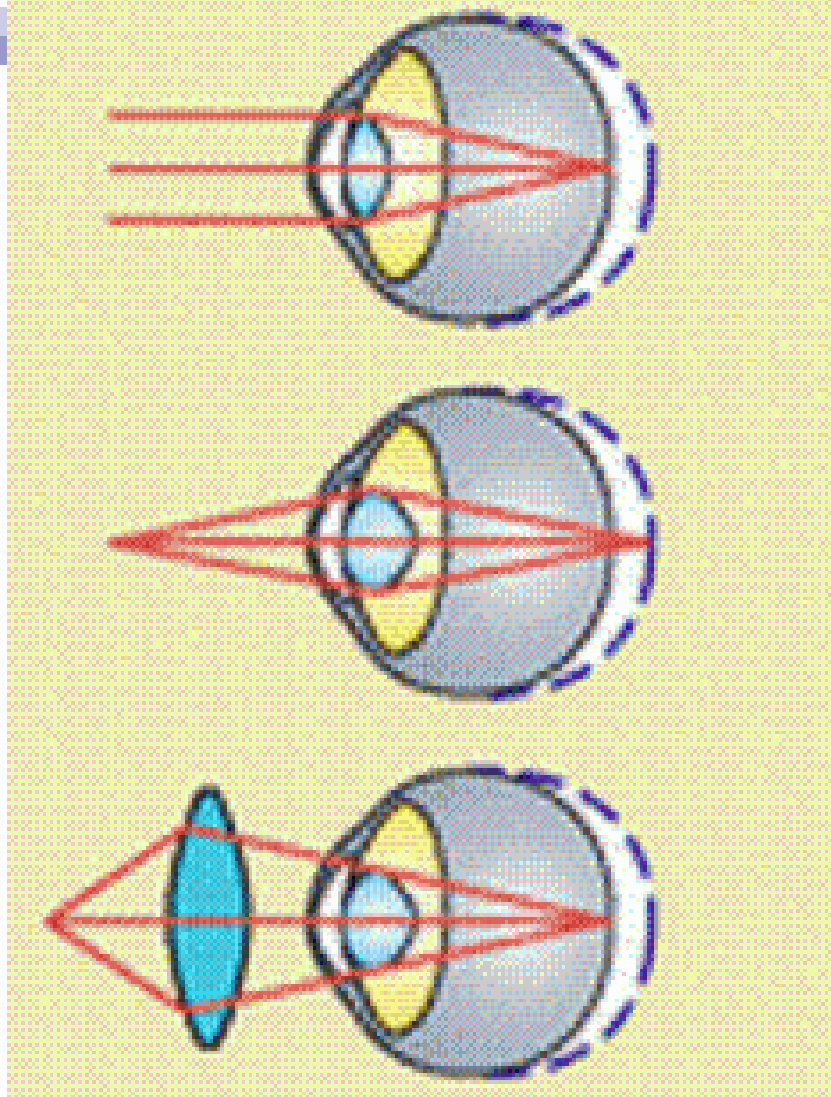
1. **Miopiya**- yaqindan ko'rish kasalligi.

2. **Gipermetropiya** -uzoqdan ko'rish kasalligi.

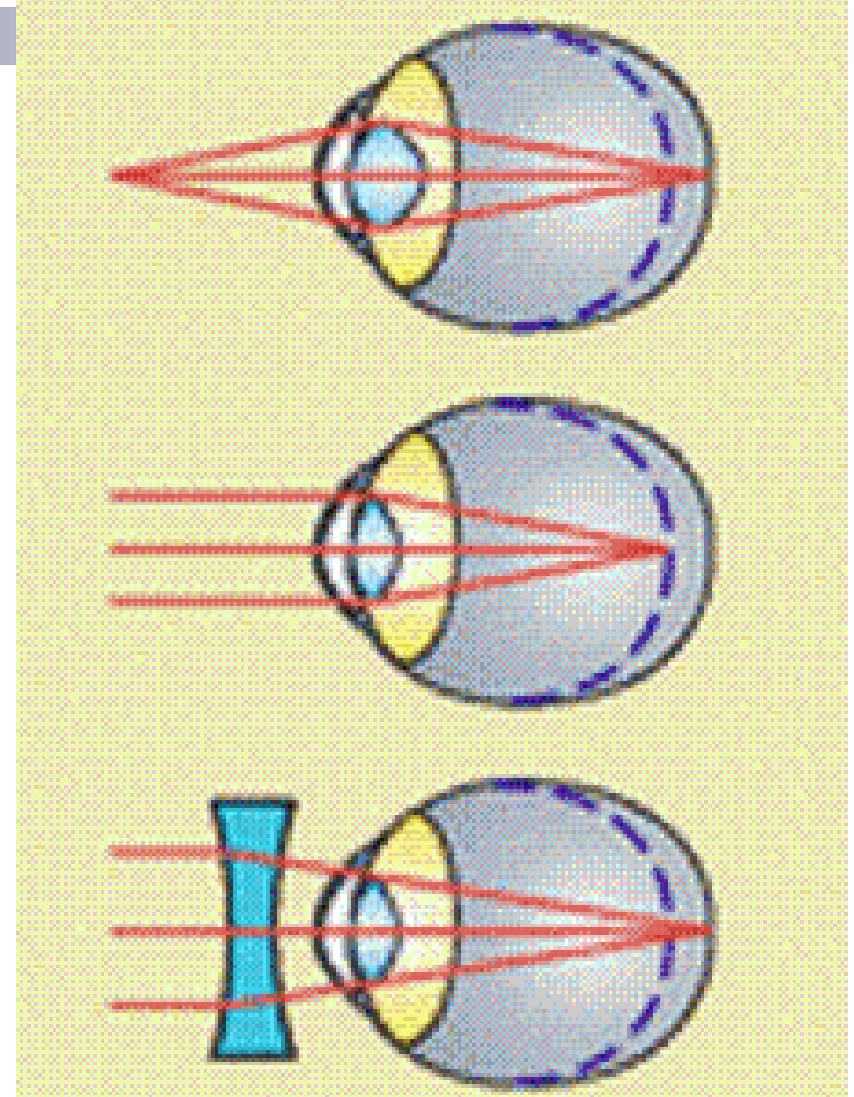
3. **Daltonizm** – kolbasimon retseptorlar funksiyasining tug'ma buzilishi. .

4. **Glaukoma**- ko'z ichi bosimining oshishi.

5. **Katarakta** – ko'z gavharining kasallanishi.

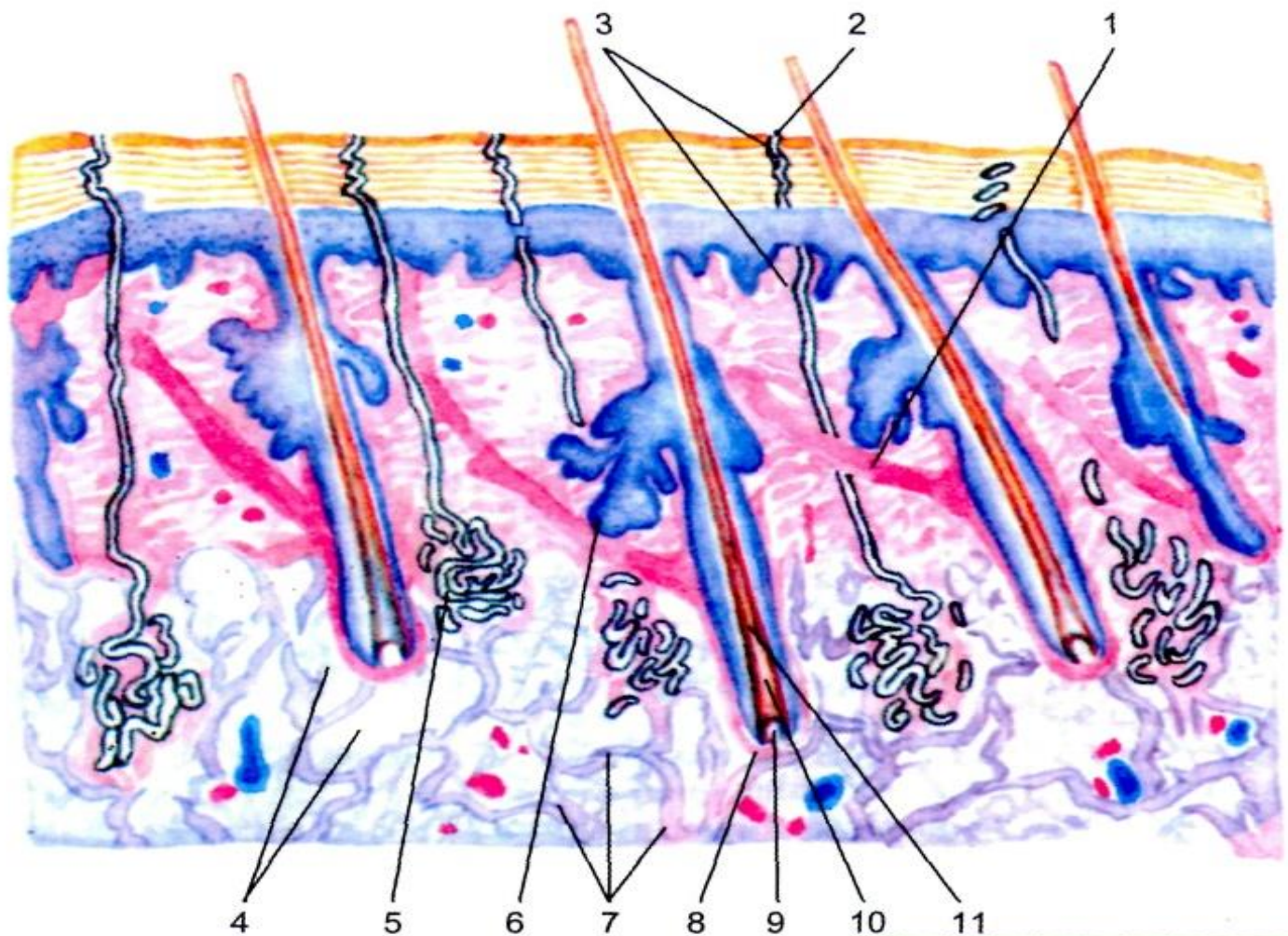


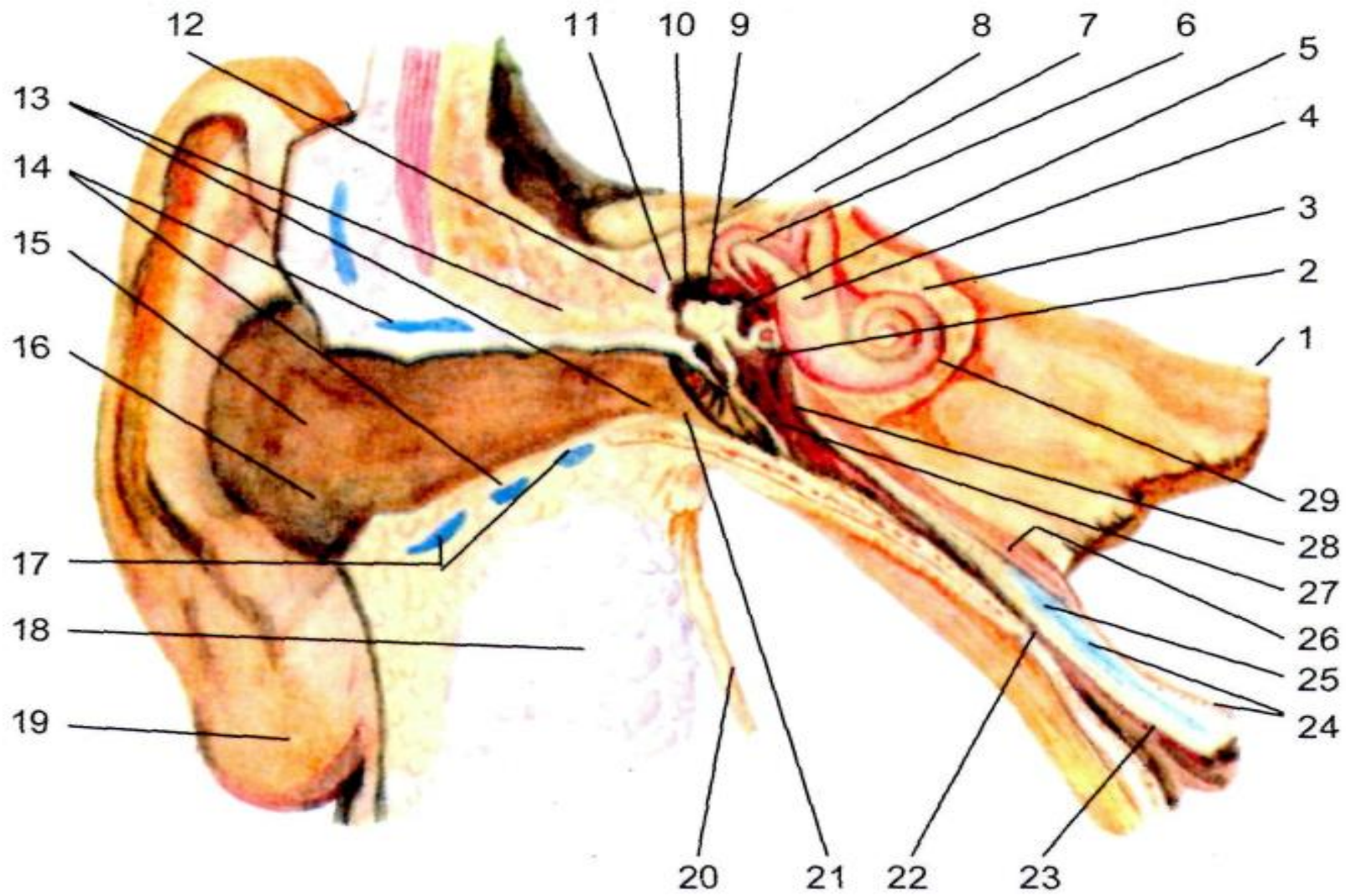
- **Gipermetropiya -**
tug'ma uzoqdan ko'rish
kasalligi



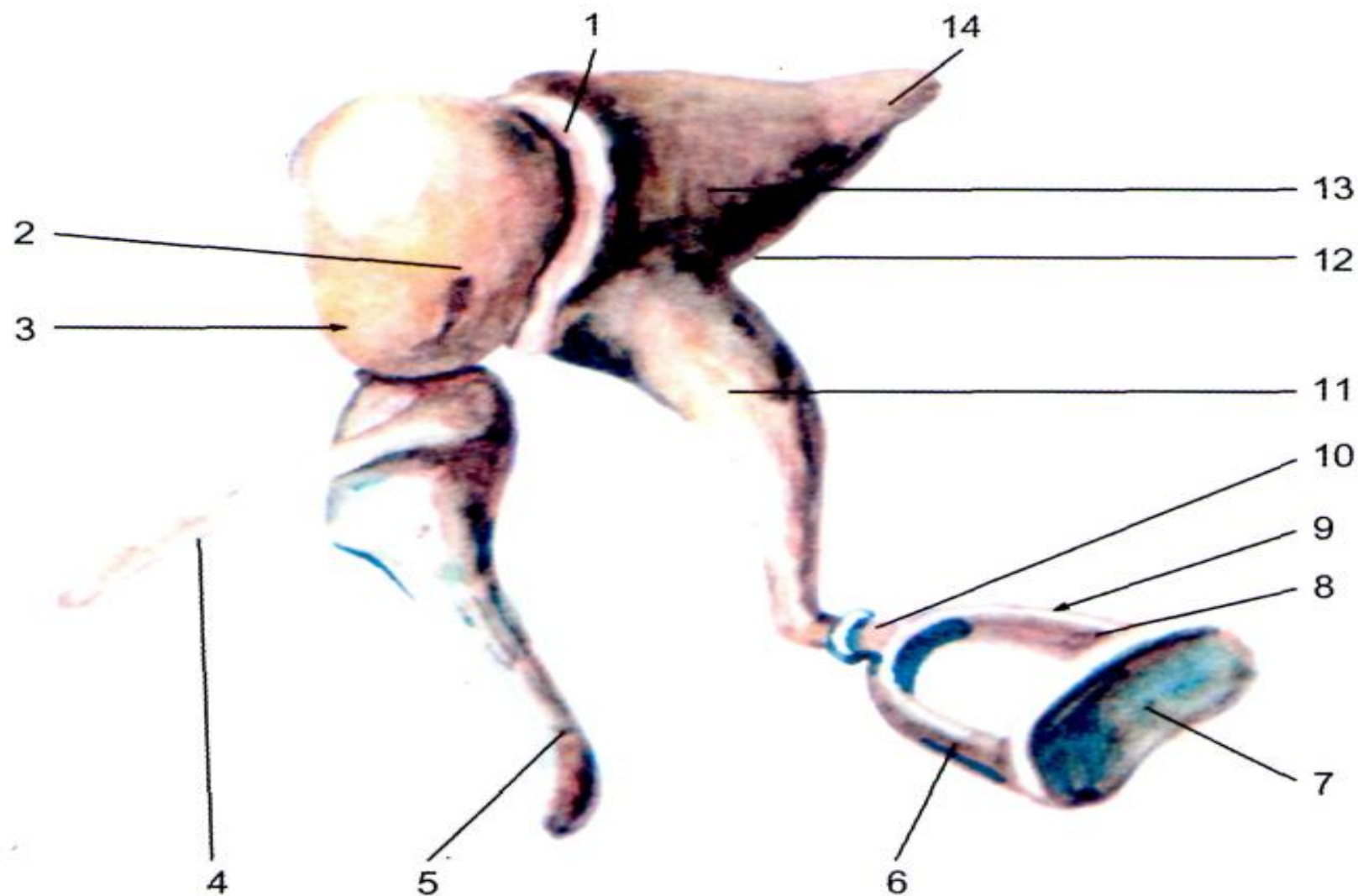
- **Miopiya –**
tug'ma yaqindan ko'rish
kasalligi

Teri kesimining ko'rinishi.

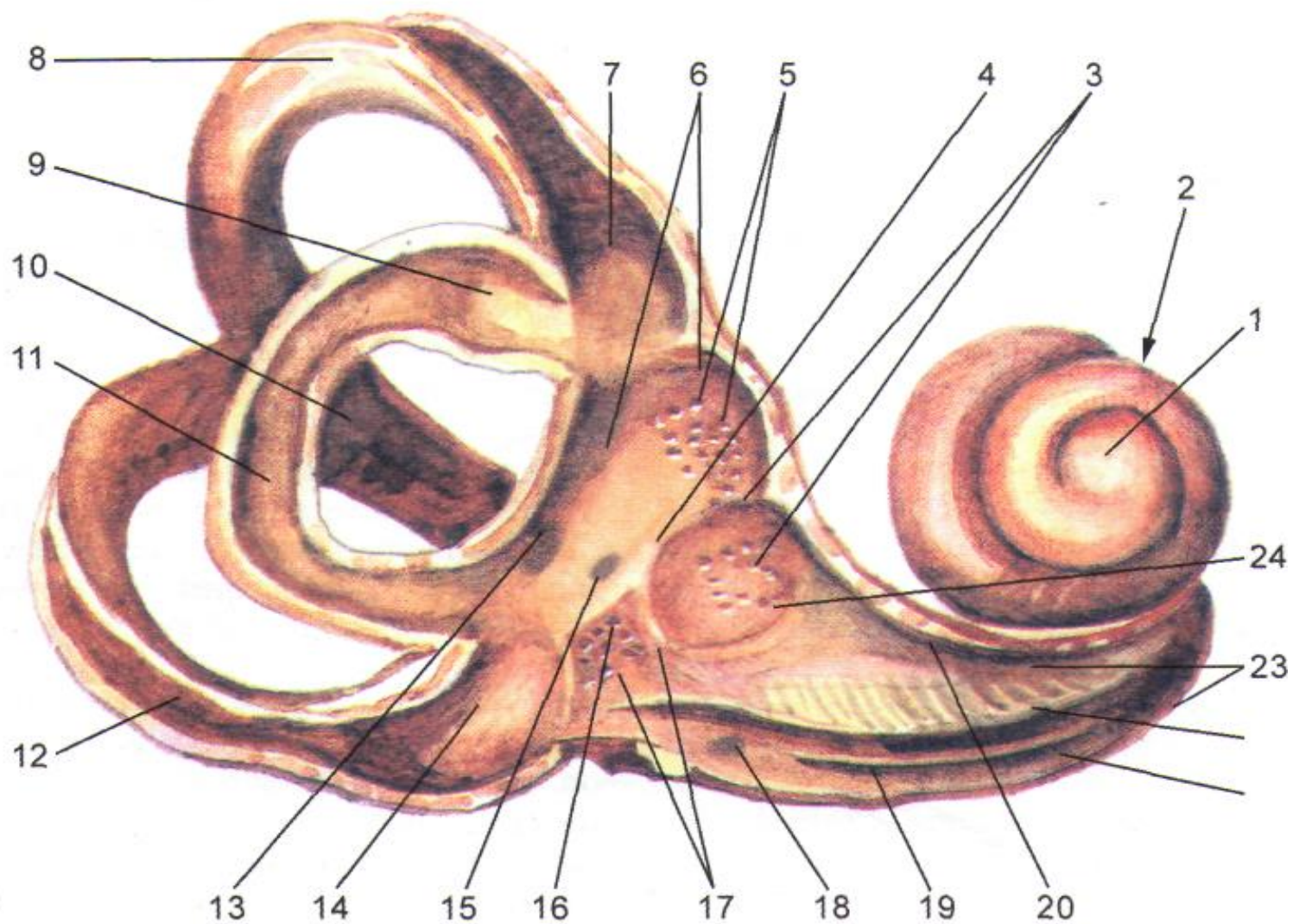




Эшитувнинг асосий суяклари



Суяк лабиринти



Asosiy adabiyotlar ro'yxati

1. Rajamurodov Z.T., Rajabov A.L. “Odam va hayvonlar fiziologiyasi” T.: Tib. Kitob. 2010 y.
 2. Nuriddinov.E.N. “Odam fiziologiyasi” T.: “A’loqachi” 2005 y.
 3. Almatov K.T., Allamuratov.Sh.I. “Odam va hayvonlar fiziologiyasi” T.: Universitet. 2004 y.
 4. Xudoyberdiev.R.E.,I.K.Axmedov. “Odam anatomiyasi” T.: “Ibn Sino” 1993 y.
 5. Ahmedov.A. “Odam Anatomiyasi” T.: “Iqtisod moliya” 2007 y.
 6. R.Boxodirov “Odam anatomiyasi” T.: “O‘zbekiston”, 2006 y.
- I.K.Axmedov “Atlas odam anatomiyasi”T.: “Uzb. Milliy ensiklopediyasi”1998y.
 - **Adolf Faller., Michael Schuenke-The Human Body - “An Introduction to Structure and Function” ThiemeStuttgart · New York**
http://www.bestmedbook.com /631-644

•Elektron ta’lim resurslari

- www.tdpu.uz
- www.pedagog.uz
- www.physiology.ru/handbooks.html
- www.curator.ru/e-books/b22.html