What is Eye Anatomy and the Eye's Chambers?

Worksheet

The eye has three chambers: the anterior chamber (between cornea and iris), the posterior chamber (between iris and lens), both filled with aqueous humor, and the vitreous chamber (behind the lens) filled with vitreous humor.

Questions

1. Which chamber lies between the cornea and iris?

A) Posterior chamber
B) Vitreous chamber
C) Anterior chamber
D) Retinal chamber

2. Where is aqueous humor produced?

A) Retina
B) Ciliary body
C) Cornea
D) Lens

3. What structure drains most aqueous humor?

A) Optic nerve
B) Trabecular meshwork
C) Vitreous body
D) Lens capsule

4. What fills the vitreous chamber?

A) Aqueous humor
B) Blood
C) Vitreous humor (gel)
D) Cerebrospinal fluid

5. A patient has sudden eye pain, blurred vision, and a mid-dilated pupil. Tonometry shows high intraocular pressure. What chamber problem explains this?

6. Why doesn't the vitreous chamber affect intraocular pressure changes as quickly as the anterior/posterior chambers?

7. If the trabecular meshwork's function is blocked by debris, what happens to aqueous humor and pressure?

8. Define: Name the eye's three chambers.

9. Define: Where is aqueous humor produced?

10. Define: Where does aqueous humor drain?

Answer Key

1. C) Anterior chamber - The anterior chamber is bounded by the cornea in front and the iris behind.

2. B) Ciliary body - The ciliary body's epithelium secretes aqueous humor into the posterior chamber.

3. B) Trabecular meshwork - Aqueous drains mainly through the trabecular meshwork into the canal of Schlemm.

4. C) Vitreous humor (gel) - The vitreous chamber, behind the lens, contains the gel-like vitreous humor.

5. High IOP suggests blocked aqueous outflow If the iris blocks the pupil, aqueous can't pass from posterior to anterior chamber Pressure builds behind the iris, pushing it forward and narrowing the drainage angle This is acute angle-closure glaucoma - an emergency

6. The vitreous chamber holds a gel-like vitreous humor, not freely circulating fluid Vitreous humor is produced once during development and barely turns over Aqueous humor, by contrast, is continuously produced and drained So IOP fluctuations are driven mainly by aqueous dynamics, not vitreous volume

7. Trabecular meshwork is the main aqueous drainage route into the canal of Schlemm Blockage reduces outflow while production continues Aqueous accumulates in the anterior chamber Intraocular pressure rises - open-angle glaucoma pattern

8. Anterior chamber, posterior chamber (both aqueous-filled), and vitreous chamber (vitreous-filled).

9. By the ciliary body, into the posterior chamber.

10. Through the trabecular meshwork into the canal of Schlemm, then episcleral veins.