

AQUEOUS HUMOUR



جامعة ساوة

كلية التقنيات الصحية والطبية

قسم البصريات

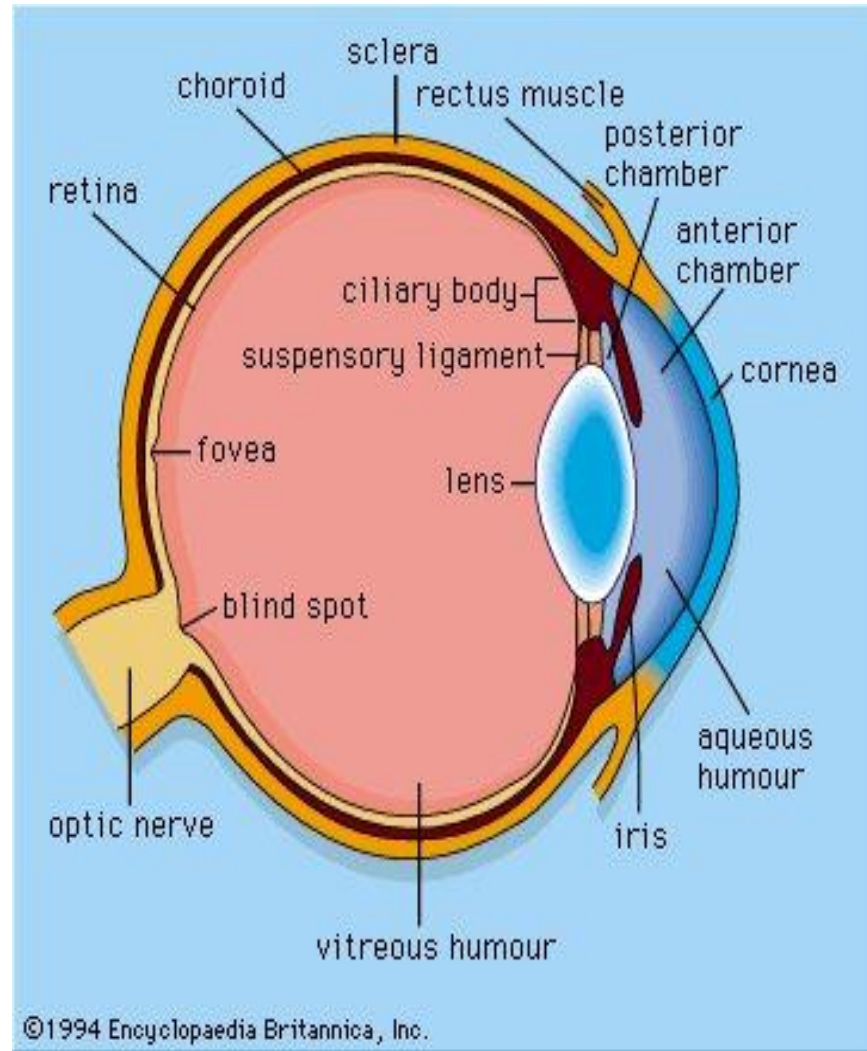
المرحلة الثانية

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Aqueous humour

aqueous humour, optically clear, slightly alkaline liquid that occupies the anterior and posterior chambers of the eye (the space in front of the iris and lens and the ring like space encircling the lens).

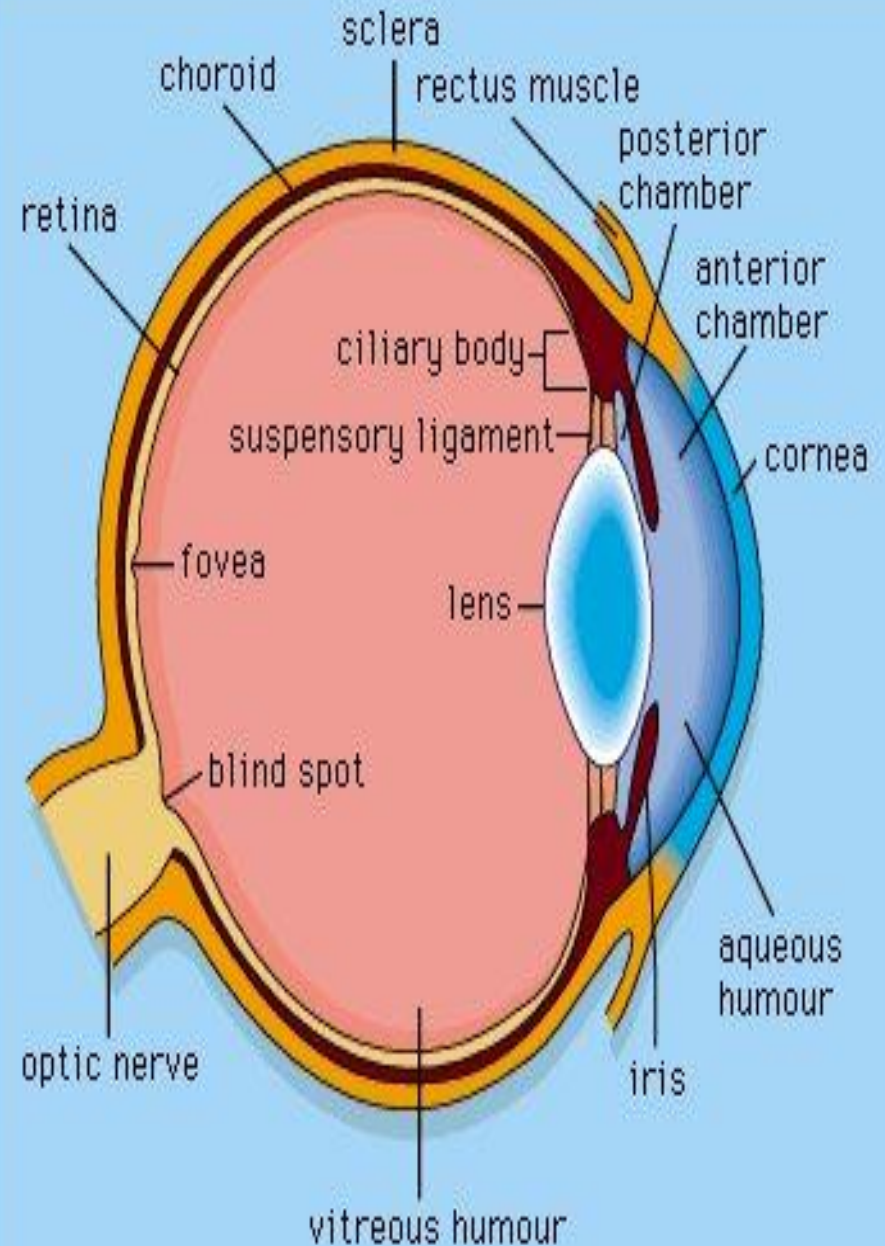


The similarity between blood plasma and aqueous humour

The aqueous humour resembles blood plasma in composition **but** contains less protein and glucose and more lactic acid and ascorbic acid. **It provides these nutrients (as well as oxygen) to eye tissues that lack a direct blood supply (such as the lens) and also removes their waste products**



In addition, it provides an **internal pressure, known as intraocular pressure, that keeps the eyeball (globe) properly formed.** Aqueous humour is formed through the ciliary body, a muscular structure located behind the iris that controls the curvature of the lens.

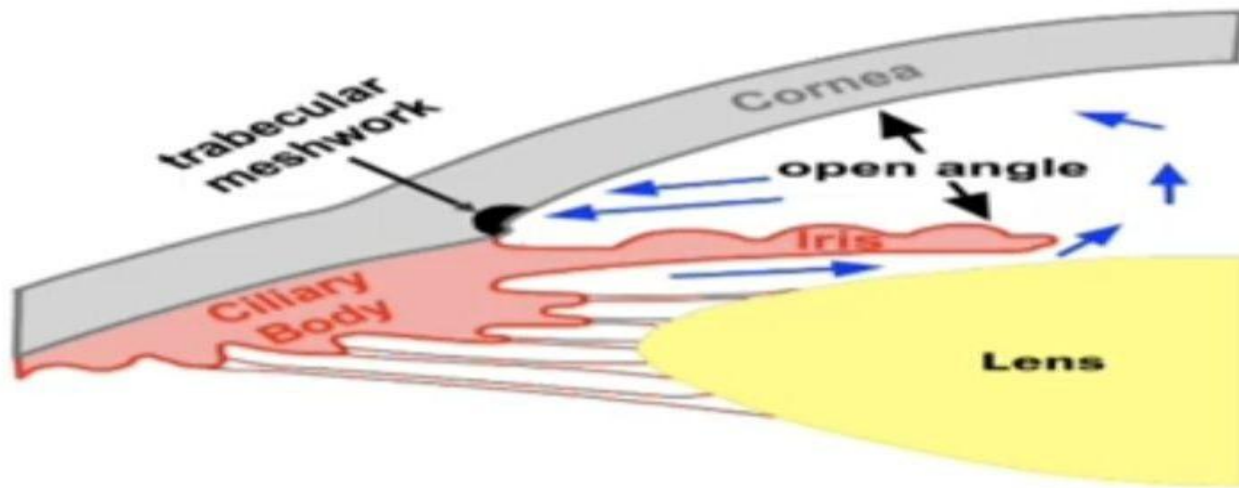


The function of the aqueous humour in the human eye

The aqueous humour bathes and nourishes the lens and maintains pressure within the eye. Since the lens and cornea have no blood supply, the aqueous humor performs the blood's job of carrying nutrients to those structures.



Aqueous humour drainage: leaves the eye through the porous trabecular meshwork and flows into Schlemm's canal (a ring like passageway around the outer angle of the anterior chamber in front of the iris). From the canal the liquid enters the veins.



How aqueous humour lead to glaucoma?

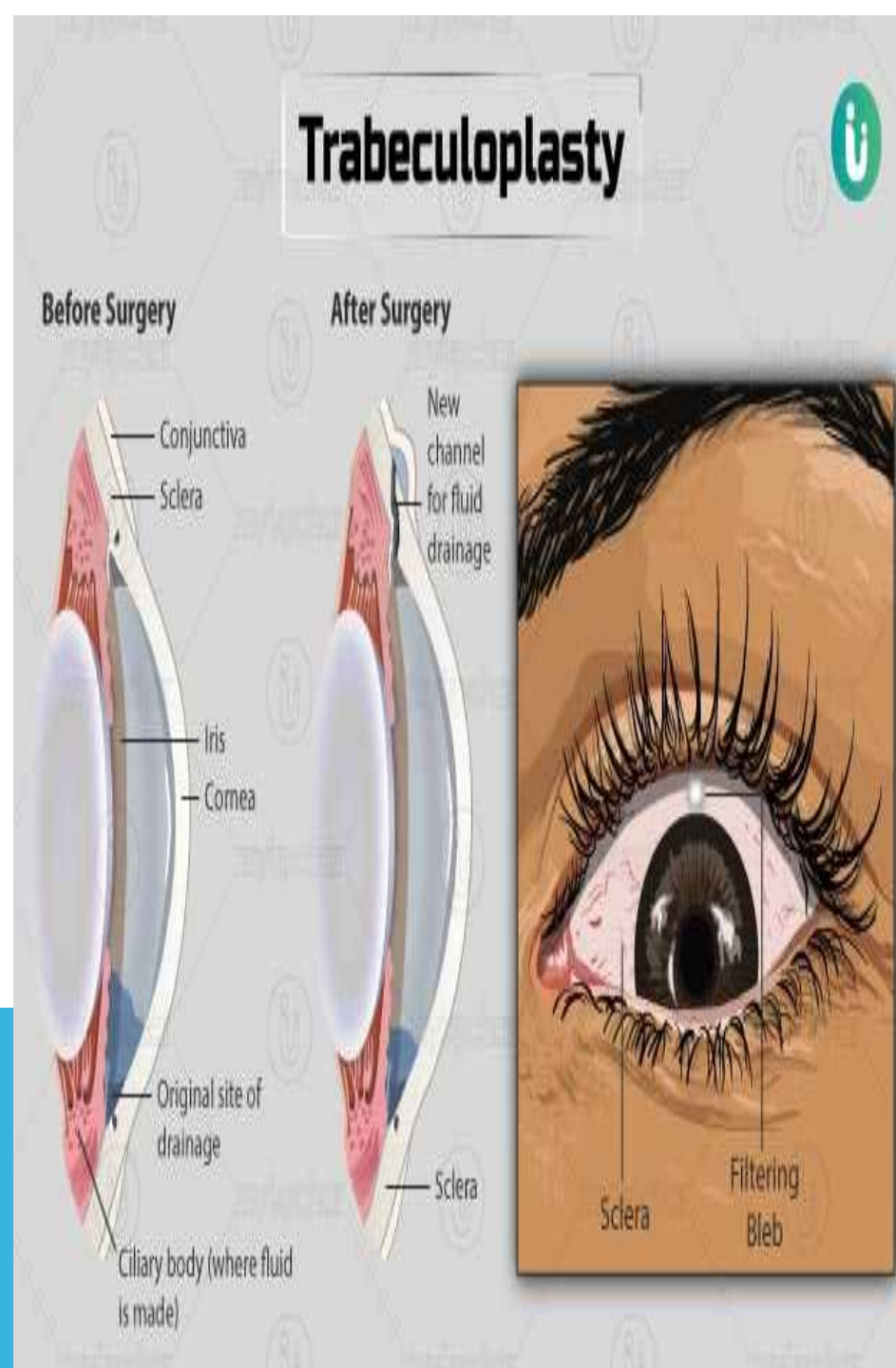
When the aqueous humour does not adequately drain from the eye, intraocular pressure can rise and loss of vision can result. Elevated eye pressures can contribute to the onset of many types of glaucoma (a common vision-threatening group of diseases). Therapies for glaucoma are aimed at lowering eye pressure by increasing the outflow of aqueous humour from the eye.

The bottom of the slide features a decorative graphic consisting of three overlapping geometric shapes: a large light blue triangle on the right, a smaller orange triangle on the left, and a teal triangle in the center-left, all pointing towards the bottom-left corner.

Types of surgery that increase outflow of aqueous humour

Two types of surgery that increase outflow of fluid from the eye include

1- **trabeculoplasty** a type of laser surgery that increases the permeability of the trabecular meshwork



2- Trabeculectomy (also called filtering microsurgery). Trabeculectomy diverts aqueous humour from the anterior chamber inside the eye to the space under the conjunctiva (the transparent skin that covers the white area, or sclera, of the eye).



Q1/What are The functions of the aqueous humour in the human eye?

Q2/mention types of surgery to treat high aqueous humur?



