

Review Quiz March 21/09

1 Which of these eye colors is produced by the *most* amount of pigment in the iris?

Brown

2 The optic nerve is known also as what cranial nerve?

Cranial nerve 2

3 What is a triangular patch of blood-vessel-engorged tissue on the conjunctiva which can encroach onto the cornea and adversely affect vision?

Pterygium

4 An inherited disease which gradually devastates the rods of the retina, thereby reducing night vision and ultimately resulting in "tunnel" vision, is known as what

retinitis pigmentosa

5 Floaters" (also known as "muscae volitantes"), which sometimes interfere with vision, can be caused by a what?

Vitreous detachment

6 What test can detect early stages of macular degeneration, a hereditary ocular disease which is the leading cause of irreversible blindness among Americans 65 and older?

Amsler grid test

7 Which of the following conditions can cause a temporary decrease in vision for several days or weeks, as well as pain in the eye when the eye is moved?

Optic neuritis

8 A palsy of which extraocular muscle most likely will result in an *esotropia* (turning inward) of the affected eye?

Superior oblique

9 What is the primary (most powerful) focusing structure of the eye?

cornea

10 Which type of photoreceptor is most sensitive to bright light and color?

cone

11 The vitreous humor, which occupies about 80% of the eye's interior, is composed mostly of what?

water

12 A "cataract" is an opacification of which eye structure?

Crystalline lens

13 Which eye structure determines a person's eye color?

iris

14 In which eye disorder does too much intraocular pressure damage optic nerve fibers?

glaucoma

15 Which eye structure is comparable to the film of a camera because it senses light focused on it?

retina

16 "Pink eye" is an inflammation of which eye tissue?

conjunctiva

17 Which cranial nerve innervates four of the six extraocular muscles (medial rectus, superior rectus, inferior rectus, and inferior oblique)?

Cranial nerve 3

18 What is the point of sharpest, most acute visual acuity within the eye?

Fovea centralis

19 Between the iris and the crystalline lens is located what?

Posterior chamber

20 The seventh layer of the retina, containing the axons of bipolar cells and amacrine cells and the dendrites of ganglion cells, is known by what name?

Inner plexiform

21 What is the ring-like tendon, located in the nasal orbit, through which the superior oblique passes?

trochlea

22 As an increasing amount of light enters the eye, the pupil does what?

constricts

23 What severely blinding disorder results from a loss of the arterial blood supply to the optic nerve of one eye?

Ischemic optic neuropathy

24 What ocular tissue provides protection for the eye and serves as an attachment for the extraocular muscles which move the eye?

sclera

The cornea is composed of 5 layers, from the front to the back:

1. **epithelium**
2. **Bowman's (anterior limiting) membrane**
3. **stroma (substantia propria)**
4. **Descemet's (posterior limiting) membrane**
5. **endothelium (posterior epithelium)**

The tear film resting on the corneal surface has three layers:

- **lipid or oil layer,**
- **lacrimial or aqueous layer, and**
- **mucoïd or mucin layer**

Besides excessive tearing, symptoms associated with dry eyes can include the following:

- **eye irritation, scratchiness, grittiness, or pain,**
- **redness of the eye(s),**
- **a burning sensation in the eye(s),**
- **a feeling of something in the eye(s),**

- eyes that feel "glued shut" after sleeping,
- blurred vision, and
- eye discomfort with contact lens wear.
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A given extraocular muscle moves an eye in a specific manner, as follows:

- **medial rectus (MR)**—moves the eye toward the nose
- **lateral rectus (LR)**—moves the eye away from the nose
- **superior rectus (SR)**—primarily moves the eye upward and secondarily rotates the top of the eye toward the nose
- **inferior rectus (IR)**—primarily moves the eye downward and secondarily rotates the top of the eye away from the nose
- **superior oblique (SO)**—primarily rotates the top of the eye toward the nose and secondarily moves the eye downward
- **inferior oblique (IO)**—primarily rotates the top of the eye away from the nose and secondarily moves the eye upward
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Define:

Blepharitis an inflammation of the edges of the eyelids involving hair follicles and glands that open onto the surface.

Cataract a condition in which the lens of the eye becomes dense or opaque and does not properly transmit light.

Conjunctivitis inflammation of the blood vessels in the conjunctiva, the membrane that covers the sclera and inside of the eyelids. Conjunctivitis may be caused by bacteria or viruses

Glaucoma a disease that impairs the optic nerve when fluid and pressure build up in the eye and damage the optic nerve.

Iritis an inflammation of the iris of the eye.