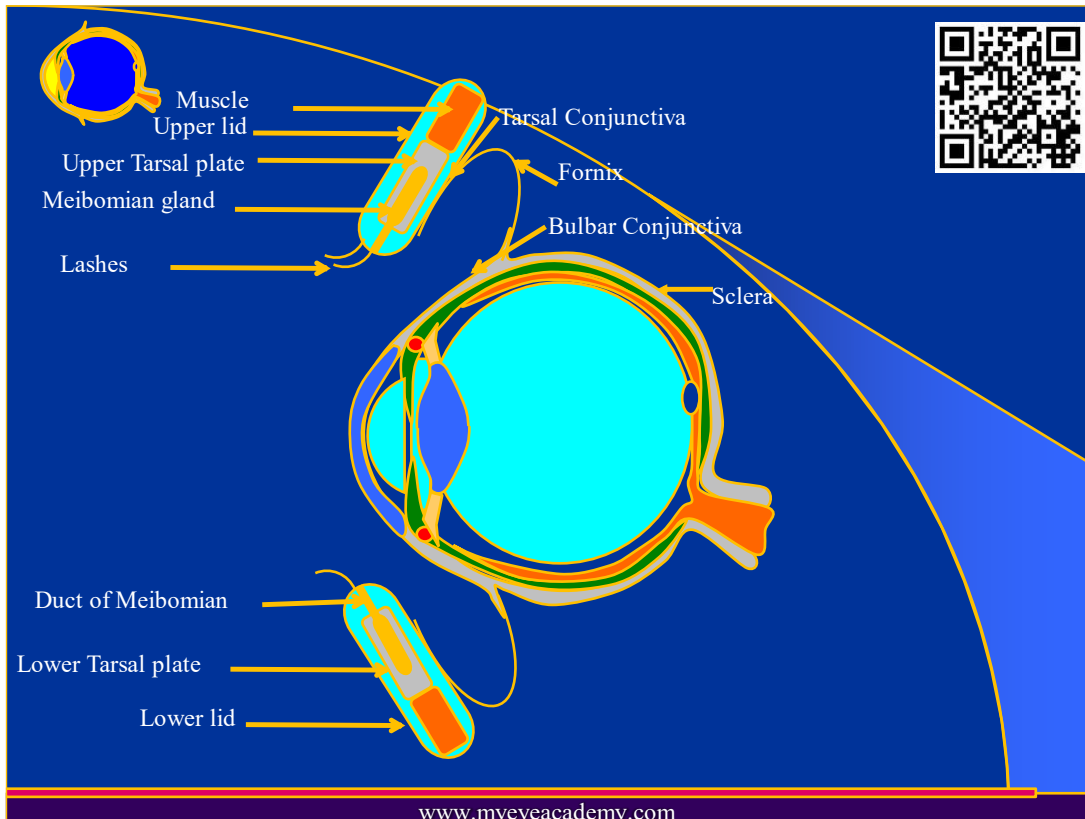
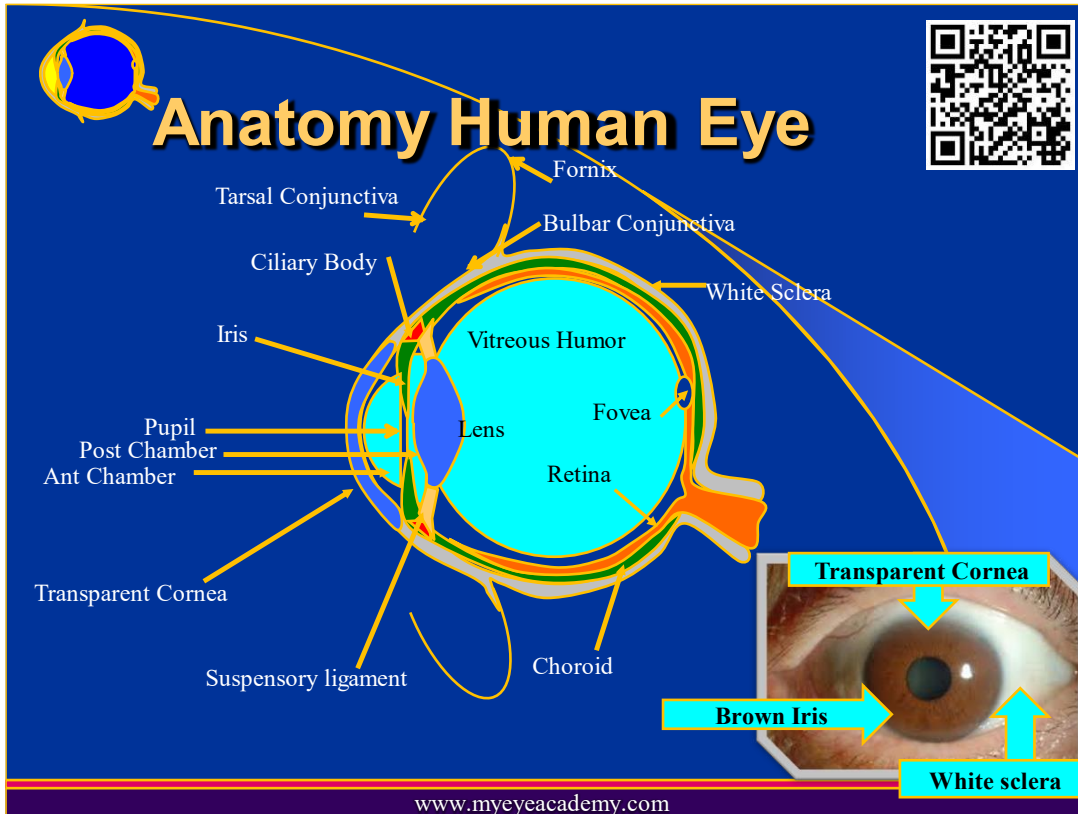
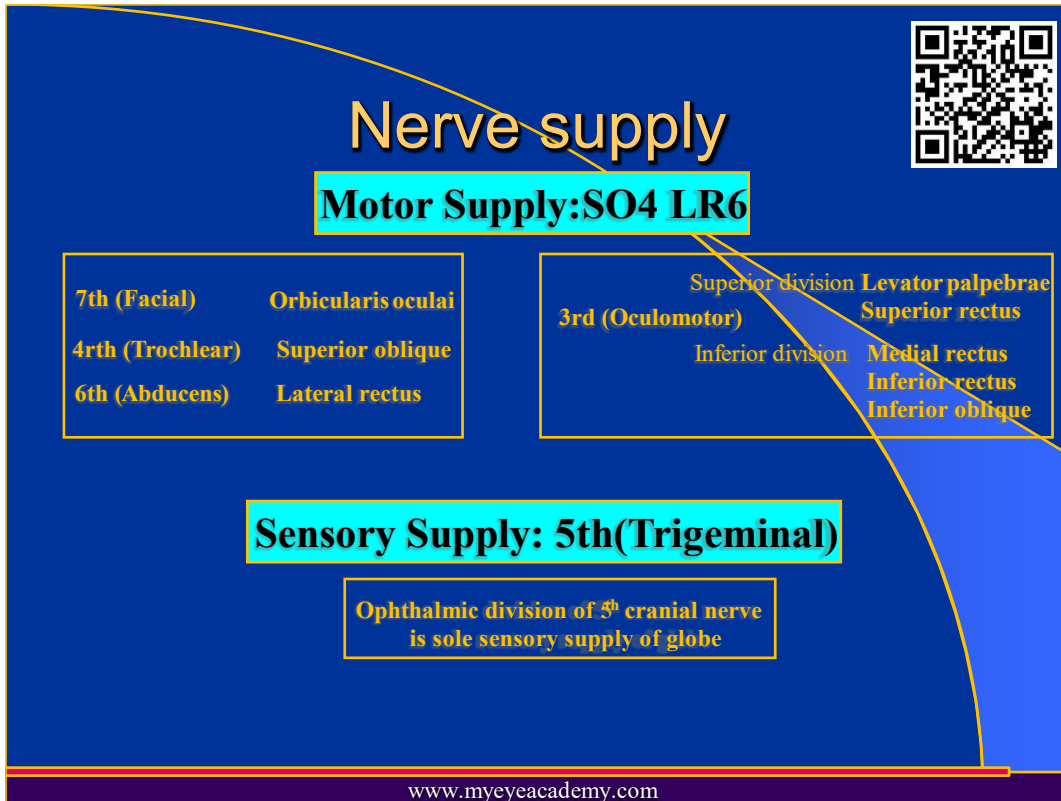
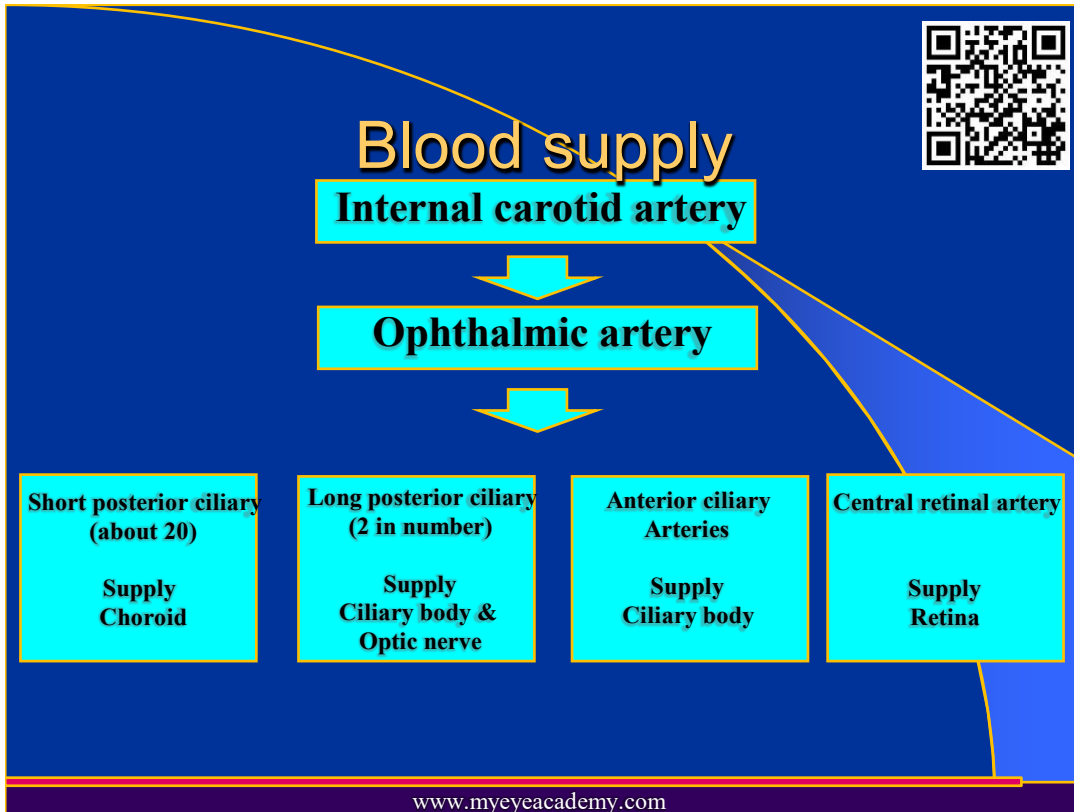


1.2 Anatomy & Physiology





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Physiology of eye & vision

Vision is

Vision means

- The special sense by which the qualities of an object (such as shape, size, luminosity and colour) are perceived through a process in which

Light rays
In retina ↓
Electrical signals
Via optic nerve ↓
Brain

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Vision is special sense. Vision does not mean just seeing an object but vision means seeing an object and appreciating its size, shape, brightness and colours.

Vision mean visual acuity, contrast, colour vision and visual fields.

1. Visual acuity measures shape and size of object. It is measured with different types of charts. The most common type of chart is Snellen chart which has alphabets.

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Physiology: What vision means




1. Visual Acuity (Shape & size)
 1. Light perception
 2. Form perception
2. Contrast sensitivity
3. Colour Vision
4. Visual Fields

All transformed by retina into electrical signals to be transmitted to brain

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Colour vision



- Ability to discriminate between colours
- Function of cones
- Three types of cones: Red, Green & Blue
- Colour vision tested by
 - Ishihara chart (book of coloured numbers)
 - Farnsworth-Munsell 100 hue test (Dices of colours)
- Colour blindness
 - Congenital: Most anomalous Trichromats (all 3 cones present but not functioning properly)
 - Acquired: Blue-yellow (**Bye Bye**) defect in macular
Red-green in optic nerve (optic neuritis)

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