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EYE DEFECTS

Write short notes on any two eye defects

This eye defects include:

1. Ametropia
2. Presbyopia

AMETROPIA

Is any derivation from in the reflect power from the normal condition, resulting in inadequate focusing on the retina. Any eye with ametropia is referred to as an **ametropic eye**. This defect is due to change in shape of the eyeball. Ametropia is of two types;

• Myopia
• Hypermetropia

Myopia: is characterized by the inability to see distant object. In myopia, the near vision is normal but far point is not infinite. In myopia, the refractive power of lens is usually normal. But the **anterioposterior diameter** of the eyeball is abnormally long. Hence the image is brought to the focus a little in front of the **retina.** Light rays after coming to a focus, disperse again so, a blurred image is formed upon the retina. A myopic eye can corrected by using a **biconcave lens**.

Hypermetropia: is the eye defect characterized by inability to see near object. It is also called **hyperopia**. In this defect, distant vision is normal but near vision is affected. It is due to decreased anterioposterior diameter of the eyeball. So even through the refractive power of the lens I normal, the light rays are not converged enough to form a clear image on the retina. Hypermetropia is corrected by **biconvex lens**.

PRESBYOPIA

Is a condition characterized by progressive diminished ability of the eye to focus on near object with age. it is due to gradual reduction in the amplitude of accommodation. It progresses with age. in presbyopia, the distant vision is unaffected, only the near vision is affected.

It have two main causes;

• Decreased elasticity of lens is because of the physical changes in lens and its capsule duing old age.
• Decreased convergence of eyeballs due to the concomitant weakness of ocular muscles in the old age.

Presbyopia can corrected by using biconvex lens.