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Write short notes on any two eye defects

There are different eye defects namely:

1. Myopia
2. Hypermetropia
3. Anisometropia
4. Astigmatism
5. Presbyopia

**Hypermetropia**Hypermetropia is the eye defect characterized by the inability to see near object. It is otherwise known as long sightedness because the person can see the distant objects clearly but not the near objects. It is also called hyperopia. In this defect, distant vision is normal but, near vision is affected (metras = measure).

**Cause** Hypermetropia is due to decreased anteroposterior diameter of the eyeball. So, even though the refractive power of lens is normal, the light rays are not converged enough to form a clear image on retina, i.e. the light rays are brought to a focus behind retina. It causes a blurred image of near objects. Hypermetropia occurs in childhood, if the eyeballs fail to develop the correct size. It is common in old age also.**Correction**Hypermetropia is corrected by using biconvex lens.Light rays are converged by convex lens before entering the eye

**Astigmatism**

Astigmatism, along with short sight and long sight, is a common cause of blurry vision. It's usually corrected with glasses or contact lenses.

Astigmatism is a common vision problem caused by an error in the shape of the cornea. With astigmatism, the lens of the eye or the cornea, which is the front surface of the eye, has an irregular curve. This can change the way light passes, or refracts, to your retina. This causes blurry, fuzzy, or distorted vision. Farsightedness and nearsightedness are two other types of problems with the way light passes to your retina. Farsightedness is called hyperopia. Nearsightedness is called myopia.

Astigmatism means your eye is shaped more like a rugby ball than a football, so light is focused at more than one place in the eye.

This can cause:

* difficulty seeing at night
* eyestrain
* squinting
* eye irritation
* headaches
* blurred vision
* headaches
* eye strain (you may notice this after concentrating for a long time – on a computer, for example)
* Astigmatism normally occurs alongside short sight or long sight.

In young children, a high astigmatism may cause lazy eye. It's important this is spotted early so it can be treated**.**

**Types of Astigmatism**

The two main types of astigmatism are corneal and lenticular. A corneal astigmatism happens when your cornea is misshapen. A lenticular astigmatism happens when your lens is misshapen.

**Who is at risk for astigmatism?**

Astigmatism can occur in children and adults. Your risk of developing astigmatism may be higher if you have any of the following:

a family history of astigmatism or other eye disorders, such as keratoconus (degeneration of the cornea)

scarring or thinning of your cornea

excessive nearsightedness, which creates blurry vision at a distance

excessive farsightedness, which creates blurry close-up vision

a history of certain types of eye surgery, such as cataract surgery (surgical removal of a clouded lens)

**Treatment**

Mild cases of astigmatism may not require treatment. Your doctor may treat astigmatism that causes vision problems by using one of the following methods.

* **Corrective lenses**

Corrective eyeglasses and contact lenses prescribed by a doctor are the most common and least invasive treatments for astigmatism.

* **Orthokeratology (Ortho-K)**

Orthokeratology (Ortho-K) is a treatment that uses rigid contact lenses to temporarily correct the irregular curvature of your cornea. You’ll wear rigid contact lenses for limited periods of time. You may wear them during sleep and then remove them during the day. Some people have clear vision during the day without corrective lenses when undergoing Ortho-K. The benefits of Ortho-K are only present when using it. Your vision will return to its previous state after stopping Ortho-K.