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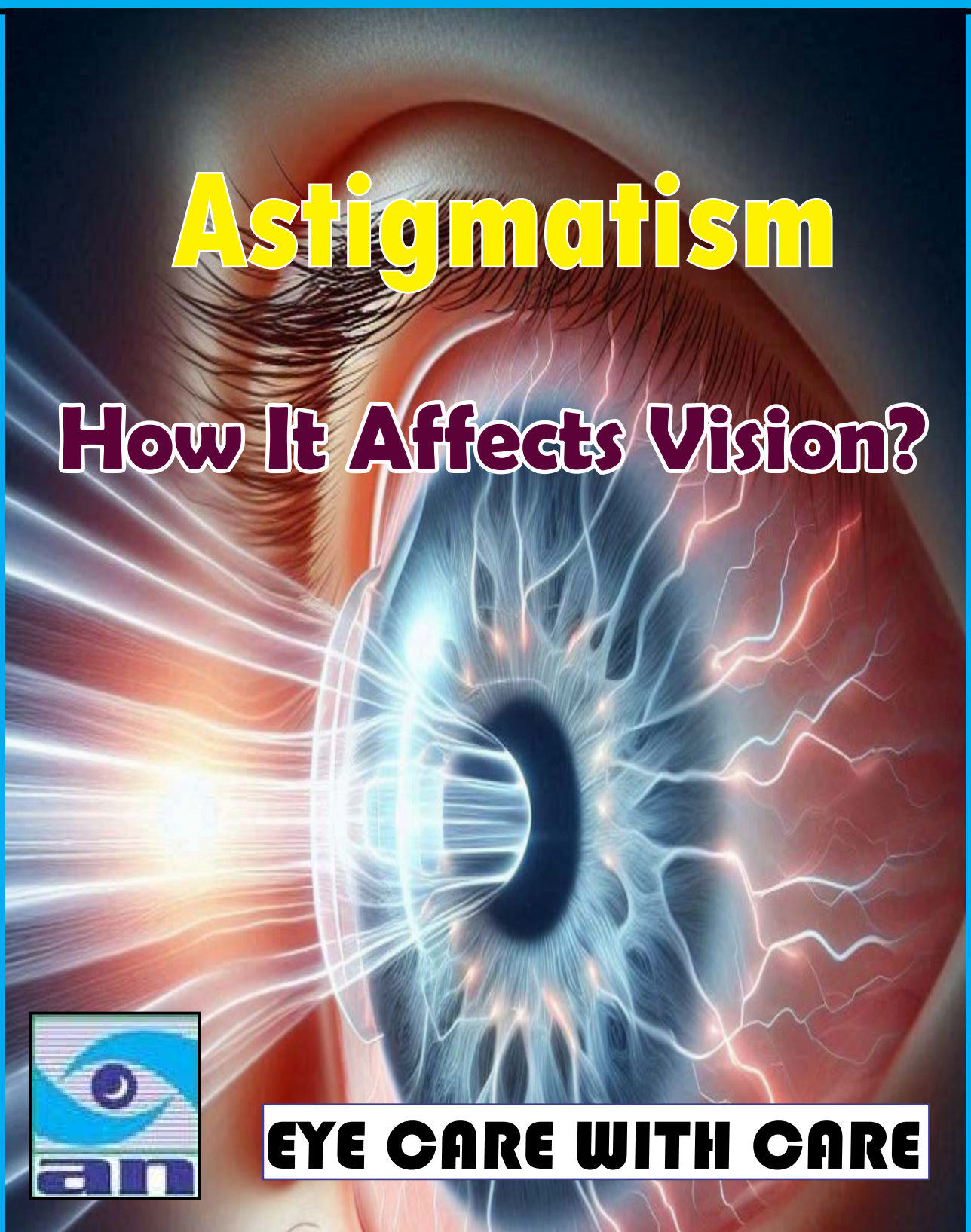
# Nethra Arogyam



## Astigmatism

## How It Affects Vision?

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# Astigmatism

## How It Affects Vision?

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**Astigmatism is a common vision condition that affects millions of people worldwide. Despite its prevalence, many people do not fully understand what astigmatism is, what causes it, how to recognize its symptoms, and what treatment options are available. This article aims to provide a comprehensive overview of astigmatism to help you better understand this condition.**

Astigmatism is a refractive error, meaning it affects how the eye focuses light. In a perfectly shaped eye, the cornea and lens are smooth and evenly curved in all directions. This allows light to focus properly on the retina at the back of the eye. However, in an eye with astigmatism, the cornea or lens has an irregular shape. This irregularity causes light to focus on multiple points in the eye, rather than just one, resulting in blurred or distorted vision.

### Causes of Astigmatism

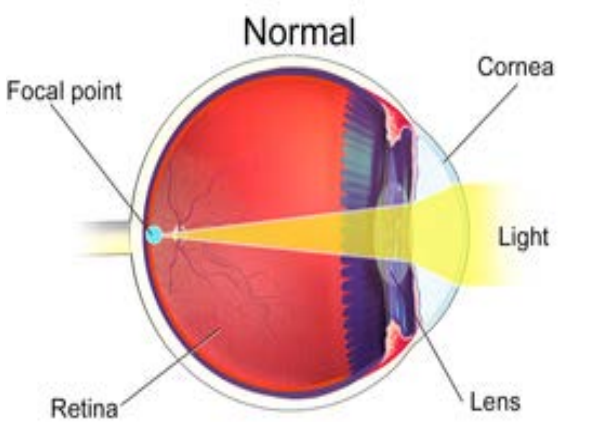
- **Genetics:** It is often inherited and can be present from birth.
- **Eye Injury or Surgery:** Trauma to the eye or certain types of eye surgery can cause astigmatism.
- **Keratoconus:** This progressive eye disease causes the cornea to thin and bulge into a cone-like shape, leading to astigmatism.
- **Other Eye Conditions:** Certain conditions, such as pterygium (a growth on the eye), can alter the shape

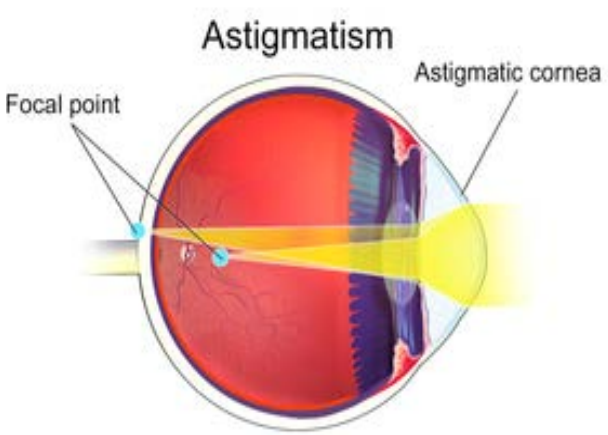
of the cornea and cause astigmatism.

## Symptoms of Astigmatism

- **Blurred or Distorted Vision:** Both near and far vision can be affected.
- **Eyestrain or Discomfort:** Particularly after prolonged reading or screen use.
- **Headaches:** Often due to the eyes working harder to focus.
- **Difficulty with Night Vision:** Halos or glare around lights may be more pronounced.
- **Squinting:** To try and see more clearly.

If you experience any of these symptoms, it is important to schedule an eye examination with an optometrist or ophthalmologist.




## Diagnosing Astigmatism

- **Visual Acuity Test:** Reading letters on a distance chart.
- **Keratometry:** Measuring the curvature of the cornea.
- **Refraction:** Using a series of lenses to determine the best prescription for glasses or contact lenses.
- **Corneal Topography:** Creating a detailed map of the cornea's surface curvature.

## Treatment Options

- **Eyeglasses:** The simplest and most common method for correcting astigmatism.
- **Contact Lenses:** Special toric lenses designed to correct the irregular curvature of the cornea.
- **Orthokeratology (Ortho-K):** A non-surgical treatment involving specially designed contact lenses that temporarily reshape the cornea during sleep.
- **Laser Surgery:** Procedures such as LASIK or PRK that reshape the cornea to correct refractive errors.
- **Lens Implants:** In some cases, intraocular lenses (IOLs) may be used, particularly for patients undergoing cataract surgery.

## Managing Astigmatism

While astigmatism cannot be prevented, regular eye exams can ensure early detection and appropriate management. Following prescribed treatments, wearing corrective lenses as advised, and practicing good eye health can help maintain optimal vision and reduce discomfort associated with astigmatism.

Astigmatism is a manageable condition with various effective treatments available. Understanding its causes, recognizing the symptoms, and seeking appropriate care can help you maintain clear and comfortable vision. If you suspect you have astigmatism or if you are experiencing any changes in your vision, consult with an eye care professional for a thorough evaluation and personalized treatment plan.

## How Astigmatism Leads to Headaches

The relationship between astigmatism and headaches is primarily due to the extra effort the eyes make to try to compensate for the irregular curvature of the cornea or lens.

## Symptoms Indicating Headaches Due to Astigmatism

- **Frontal Headaches:** Pain occurs in the forehead area, particularly after prolonged visual tasks.
- **Visual Discomfort:** Blurred vision, double vision, or distorted vision accompanying headaches.
- **Fatigue:** General eye fatigue & discomfort, after using screens or reading for extended periods.
- **Frequent Squinting:** A noticeable increase in squinting to see objects clearly, leading to facial & eye muscle strain.

Proper diagnosis, accurate prescription lenses, and good visual habits can significantly reduce or eliminate these headaches.