NAME: NGUE TCHOUMBA EVE JOYCE

DEPARTMENT: PHARMACOLOGY

MATRIC NUMBER: 19/mhs07/006

COURSE CODE: PHS 212

**MYOPIA**

Myopia occurs when the eyeball is too long, relative to the focusing power of the cornea and lens of the eye. This causes light rays to focus at a point in front of the retina, rather than directly on its surface If you're nearsighted, the first number ("sphere") on your eyeglasses prescription will be preceded by a minus sign (–).

Nearsightedness (myopia) is a common vision condition in which you can see objects near to you clearly, but objects farther away are blurry. It occurs when the shape of your eye causes light rays to bend (refract) incorrectly, focusing images in front of your retina instead of on your retina.

Nearsightedness may develop gradually or rapidly, often worsening during childhood and adolescence. Nearsightedness tends to run in families.

A basic eye exam can confirm nearsightedness. You can compensate for the blur with eyeglasses, contact lenses or refractive surgery.

**Symptoms**

Nearsightedness symptoms may include:

Blurry vision when looking at distant objects

The need to squint or partially close the eyelids to see clearly

Headaches caused by eyestrain

Difficulty seeing while driving a vehicle, especially at night (night myopia)

Nearsightedness is often first detected during childhood and is commonly diagnosed between the early school years through the teens. A child with nearsightedness may:

Persistently squint

Need to sit closer to the television, movie screen or the front of the classroom

Seem to be unaware of distant objects

Blink excessively

Rub his or her eyes frequently.

**Causes**

Your eye has two parts that focus images:

The cornea is the clear, dome-shaped front surface of your eye.

The lens is a clear structure about the size and shape of an M&M's candy.

In a normally shaped eye, each of these focusing elements has a perfectly smooth curvature, like the surface of a marble. A cornea and lens with such curvature bend (refract) all incoming light to make a sharply focused image directly on the retina, at the back of your eye.

**Risk factors**

Certain risk factors may increase the likelihood of developing nearsightedness, such as:

Genetics. Nearsightedness tends to run in families. If one of your parents is nearsighted, your risk of developing the condition is increased. The risk is even higher if both parents are nearsighted.

Environmental conditions. Some studies support the idea that a lack of time spent outdoors may increase the chances of developing myopia.

**ASTIGMATISM**

What is astigmatism?

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**.**

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**.**

**Causes**

It’s not known what causes astigmatism, but genetics is a big factor. It’s often present at birth, but it may develop later in life. It may also occur as a result of an injury to the eye or after eye surgery. Astigmatism often occurs with nearsightedness or farsightedness .

**Symptoms**

The symptoms of astigmatism may differ in each person. Some people don’t have any symptoms at all. The symptoms of astigmatism include:

Blurry, distorted, or fuzzy vision at all distances (up close and far away)

Difficulty seeing at night

Eyestrain

Squinting

Eye irritation

Headaches

**What are the treatments for astigmatism**?

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.

**Surgery**

Your doctor may recommend refractive surgery if you have a severe case. This type of surgery involves using lasers or small knives to reshape your cornea. This will permanently correct your astigmatism. The three common surgeries for astigmatism are laser in situ keratomileusis (L+ASIK), photorefractive keratectomy (PRK), and radial keratotomy (RK). All surgeries carry some risks. Talk to your doctor about the risks and benefits before getting surgery for astigmatism

**What are the complications associated with astigmatism?**

A lazy eye can occur if astigmatism in one eye isn’t corrected. Lazy eye is also called amblyopia.