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Retinal Disorders

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Its Effects on Vision



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Retinal Disorders



Its Effects on Vision

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Few retinal disorders are minor and has temporary effect on vision, whereas some are pretty dangerous and may lead to permanent blindness.

Early diagnosis and action may prevent eye loss.

Retinal disorders can affect any part of retina which is a thin layer of tissue on the inside back wall of eye. It is a thin layer of light sensitive nerve tissue. It contains many light sensitive photoreceptor cells which helps to transform the light into electrochemical signals. Later they are communicated to the brain through optic nerves. Brain processes this data and convert into pictures. Therefore, retina plays an important role for

having a clear and quality vision. Damaged retina may effect vision and some retinal disorders can cause serious vision problem or blindness.

Types

There are various retinal disorders that can lead to visual problems or severe vision loss. This includes:

Retinopathy of Prematurity (ROP)

- a disorder of the developing

retinal blood vessels in low birth weight, preterm infants. The normal retinal blood vessel growth is interrupted in premature babies. Fragile, random blood vessels start to grow on such baby's retina. As they are delicate, they can leak blood into the eye and damage retina. ROP may disappear with infant growth. Sometimes urgent treatment is necessary to avoid blindness. If not detected and treated in time, the baby may lose vision permanently. Laser treatment, freezing treatment (cryotherapy) or medication eye injections are some of the treatment prescribed.

Retinitis Pigmentosa - A rare eye disorder (approx. 1 in 4,000 people around the globe) that affect the retina. In this disorder, the photoreceptor cells degenerate and stop working over time. It is a genetic disease and progressive in nature. Retinitis Pigmentosa makes cells in the retina break down gradually overtime. Symptoms generally begins in childhood and the major initial sign is loss of night vision. Children may find difficult in dark or adjusting to dim light. There's no cure for Retinitis Pigmentosa, but low vision aids and training programs can help patients.

Age-related Macular Degeneration (AMD) - It happens when a part of the retina called the macula is damaged. Due to vision deterioration in people over the age of 60, the central vision gets blurred. The patients experience blind spot or blur in the centre of the visual area. Eat healthy, regular exercise and quit smoking to lower the risk of AMD. There are dry and wet form of Age-Related Macular Degeneration.

Macular Hole - a small defect/break in the centre of the macula. Holes are formed because of changes in the eye with age. As the hole grows, central vision will look blurry, dark or blind spot appears in central vision.

Retinal Tears - At birth vitreous (gel-like material that fills our eye) is bind to the retina. In the aging process, this gel turns into a liquid, and so vitreous gradually separate from the retina. A patient with a retinal tear may experience flashes of light, floaters, sudden appearance of light flashes, shadow in side of vision. The major risk factors are ageing, myopia, trauma, family history (retinal tears/detachment) and prior eye surgery. Retinal tears are usually treated with laser or a freezing procedure.

Retinal Detachment - It happens when retina is pulled away from its normal position at the back of the eye. Blurred vision, partial vision loss, dark shadow, sudden flashes of light, many floaters are some of the symptoms of retinal detachments. The risk factors include age, near-sightedness, history of eye surgeries or trauma and family history of retinal detachments.

Diabetic retinopathy - Long-term uncontrolled diabetes, damage small blood vessels and tissues in the retina thus causing diabetic retinopathy and diabetic macular edema which can cause vision complications. There may be no symptoms in the early stages. As the condition progresses, patient may develop - spots or floaters, blurred and fluctuating vision, and vision loss.

Macular Edema - Macular edema is swelling in part of the retina. Any damages to blood vessels in the retina or obstacle for blood circulation in the eye may lead to accumulation of blood or fluid in macula. This affects proper working

of the macula. Typically, it doesn't show symptoms in the initial stages. Symptoms include blurred or wavy central vision. blind spots, faded colour vision. and sensitivity to bright lights.





Retinal Vascular Occlusion - It occurs when blood flow to or from the retina is blocked. This blockage makes the blood / fluids to build up and spill out onto the retina, leading to swelling. When retina is choked, without correct blood circulation the nerve cells in the eye can die, leading to vision loss. older age, high

> BP, diabetes, glaucoma and arteriosclerosis are the major risk factors.

> **Retinoblastoma** - It is a rare eye cancer that forms in the cells of the retina. Common children among younger than 5 years. It may cause blindness

and can also be life-threatening. Crossed eyes, eye swelling, teary eyes, eye pain are some the symptoms.

