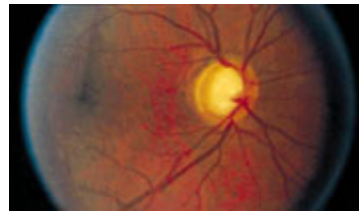


Glaucoma, do I have it?

Most people have heard the term "glaucoma" however many do not know what glaucoma actually is. Simply put, glaucoma is increased pressure within the eye which over time causes damage to the optic nerve. This, in turn, leads to loss of peripheral vision then central vision. The magnitude of this eye disease is enormous. Glaucoma is the second most common cause of blindness in the United States. At least 3 million people have glaucoma and roughly one half of them do not know it! Another 5 to 10 million people have elevated eye pressures which place them at risk for developing glaucoma.



Healthy optic nerve.



Optic nerve cupping caused by glaucoma

To understand glaucoma, one should be familiar with what "pressure of the eye" is. The human eye has an intrinsic pressure to it just as a basketball or a tire has. This pressure is NOT related to blood pressure. If the pressure of the eye becomes too high, the optic nerve can become affected. The optic nerve is the nerve in the back of the eye which is connected to the brain. The optic nerve is responsible for transmitting electric signals from the eye to the brain. The brain processes these signals into vision. As the optic nerve becomes damaged from prolonged high pressure, major loss of vision occurs.

The pressure of the eye is determined by the production and drainage of a clear fluid (called **AQUEOUS HUMOR**) within the eye. This fluid is responsible for nourishing the inside of the eye. The aqueous humor is constantly being produced and drained. If there is too much fluid production or inadequate drainage, the pressure inside the eye increases. This system is analogous to a sink with a faucet (fluid production) and a drainpipe (fluid drainage). If there is too much water flow or a clogged drain, the pressure builds up.

It is important to realize that the most common forms of glaucoma are painless! People who have undiagnosed glaucoma are unaware they have this condition because there are no early signs or symptoms. There is no pain, redness or obvious visual loss. The only way glaucoma can be detected early on is by having a complete eye exam. During this exam, the pressure of each eye is measured and the appearance of the optic nerve is assessed. If there is any suspicion of glaucoma, a visual field test is performed to determine one's peripheral and central vision. In addition, Optical Coherence Tomography (OCT) is performed to assess the health of the optic nerve, allowing glaucoma damage at a much earlier stage thus preserving vision. Other factors such as family history and appearance of the drainage angle are taken into account.

If a person is found to have glaucoma, what can be done? Glaucoma can be controlled but not cured. Today, there are many effective treatments for glaucoma. Usually, one is placed on eye drops to control the pressure. There are many different types of eye drops which can be used. Drops effectively control the vast majority of glaucoma cases. If drops are unsuccessful, pills or laser treatment are usually given. In the small percentage of cases where medication and/or laser are not effective, surgery is performed. One of the keys to successful treatment is early detection of the disease! The best way to detect glaucoma is by having a complete eye exam. In this manner, you can be certain whether you are at risk or not.