

EYE-Q

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October is Glaucoma Awareness Month

October is here and that means it is National Glaucoma Awareness Month. I will once again dedicate the next several columns to discussing glaucoma and its affect on our vision health. I will help define what glaucoma is, what are the different types, who is at greater risk of developing this disease and what we can do to protect our vision. Sounds like a lot of info but we have a month to break it down for you.

As with all disease processes affecting our bodies, glaucoma is seen in some parts of our population more often than in others. Ethnicity, age, gender, family history and previous medical history all play an important role in determining your risk for developing glaucoma. Glaucoma typically begins to show-up when we are in our forties. It is more common in Blacks than other ethnic groups and more often seen in women and patients with a positive family history for the disease. Patients who smoke and have certain medical conditions such as diabetes are also at higher risk. There does not, surprisingly, appear to be a correlation between hypertension and glaucoma.

The primary definition of glaucoma is increased eye pressure that causes damage to the optic nerve and retina. There are many different types of glaucoma but they tend to fall into two main categories; open angle and closed angle. Today we will limit our discussion to open angle glaucoma.

The most common of all glaucomas is open angle glaucoma (OAG) and affects more than 80% of patients with the condition. Fluid is filtered from the bloodstream to bathe and provide nutrition to the inside of the eye. It then passes through a fine tissue meshwork and re-enters the bloodstream. If the fluid is created at a higher rate than it is drained, then the pressure in our eye goes up. If this pressure is high enough, it causes damage to the optic nerve and retina. You can think of it like a partially clogged sink drain. As long as water coming out of the faucet is greater than the amount going down the drain, the water level in the sink will rise eventually spilling over. If the spillover is constant the water will eventually ruin your floor. Remember this is all occurring inside the eye. It has no effect on why your eyes water a lot.

OAG is called the silent blinder because it slowly steals our sight by destroying our peripheral or side vision first. The pressure is high enough to cause damage but not high enough to cause pain or discomfort to the patient so they are unaware of any damage. Left untreated the side vision continues to be lost until only a small island of sight is left centrally.

Routine eye exams for anyone over the age of 40 should include checks of the intraocular pressure (IOP). There are many ways to do this from an air puff device to something

called applanation tonometry, which is not only the most accurate but also the gold standard for following patients who either are at risk or already have glaucoma.

In those patients with higher than normal IOP and abnormal changes seen during a dilated eye exam, additional tests including a measurement of the peripheral vision may be indicated. This test will show how much of the side vision is already lost. It is not unusual for 50% of the optic nerve to be damaged before changes show up on the visual field test. For this reason a special test using a laser-scanning device, called an OCT or a HRT, may be ordered to look for much earlier changes and damage to the retina and optic nerve. Visual fields, OCT and HRT are only indicated after a thorough dilated exam indicates changes suspicious for glaucoma are present. Doing these tests where there is no suspicion of increased IOP or glaucoma only serve to increase the cost of medical care with no real benefit to the patient.

With treatments available today, patients have every opportunity to continue to see well and protect themselves from damage to the eyes caused by glaucoma.

If you have questions about your eye health e-mail Dr. Barowsky at doctom@tdkj.com and we'll try to answer your questions here at Eye-Q.