

Key Words: ~~congenital glaucoma, narrow angle glaucoma, open angle glaucoma, high eye pressure, pressure behind eye, eye pressure pain, acute glaucoma~~

Glaucoma: Defined

Glaucoma is actually a group of diseases that lead to loss of vision, typically through subtle changes in eye pressure over time. The pressure is changed by a build up of fluids in the front part of your eye. Glaucoma occurs when the balance of fluid entering and leaving the eye is disrupted, and the flow of fluid out of the eye does not happen the way it should. The resulting high eye pressure damages the optic nerve, which can lead to irreversible vision loss or even total blindness. Luckily, if it's caught in time, medications can restore your pressure and halt the progression of the second-leading cause of blindness in the U.S.

Are There Symptoms?

Glaucoma is a slow-progressing disease that does not usually have symptoms. There are several types of glaucoma, so symptoms can vary depending on the type. If you are among the 50 percent of people who have glaucoma symptoms, you may experience one or more of the following:

- Blind spots in your peripheral vision
- Blurred vision
- Halos around lights
- Headaches
- Eye pain

What Causes Glaucoma?

It is not unusual for there to be no concrete reason for your glaucoma. A popular theory is that the blood supply to the nerve is not at normal levels. Whatever the cause, the drain opening in your eye either closes, or becomes clogged. In any case, only secondary glaucoma, discussed below, has definite causes.

Glaucoma has been found to run in families, though, so if someone in your family has already been diagnosed with glaucoma, please be sure to inform your eye doctor so that your eye pressure can be tracked accordingly. Each patient's normal eye pressure will be different, and in fact your pressure will vary from day to day and hour to hour, depending on your activities and environment. This means it is of the utmost importance to get your pressure checked regularly in order to establish an average eye pressure that is normal for you.

Tests

The test most people are familiar with is the "puff test," which is a basic glaucoma screening test to estimate eye pressure. If your results do not fall within what is considered a normal range, then your doctor will more than likely move on to one or more of the following, to fully evaluate the health and

functioning of your optic nerve, as well as to get a more accurate pressure reading. There is a normal range of pressure, which is twelve to twenty-two millimeters of mercury, or mmHg, however, as previously mentioned, eye pressure is unique to each patient.

- **Tonometry** measures inner eye pressure using eye numbing drops
- **Ophthalmoscopy** is a dilated eye exam that looks at the shape and color of the optic nerve
- **Perimetry** is a visual field test that checks your complete field of vision
- **Gonioscopy** examines the angle in your eye where the iris and the cornea meet
- **Pachymetry** measures the thickness of your cornea

The Many Types of Glaucoma

- **Primary open-angle glaucoma** is the most common form of glaucoma. This type of glaucoma is the most common. A slow-progressing and painless disease, you may not know you are experiencing an eye problem until you see large spots or other loss of vision indicators.
- **Normal-tension glaucoma**, also known as low-tension glaucoma, results when the eye pressure doesn't change, or remains normal for you, but somehow, the optic nerve has become damaged. There is no known cause for this type of glaucoma, as with other types, although theories to abound.
- **Angle-closure glaucoma**, also known as closed-angle glaucoma or narrow-angle glaucoma, can be either chronic or acute glaucoma. This form of the disease is the least common and does have symptoms which include headaches, eye pains, nausea and vomiting, blurred vision, halos, and eye redness which appear before an attack of angle-closure glaucoma. This occurs when the angle between the iris and the cornea closes, whether gradually from age or abruptly, which can happen if you already have a narrow opening and the doctor dilates your eyes. The fluid can build rapidly and pressure will shoot up as that opening is snapped shut, causing blindness.
- **Congenital glaucoma** is glaucoma occurring in children, whether from birth or a very early age. This usually happens from a physical defect in the eye that does not allow it to function normally or from some other medical issue.
- **Secondary glaucoma** comes about when you have another medical or eye issue, and glaucoma follows as a result. Some diagnoses that can lead to secondary glaucoma include tumors, eye injury, inflammation of the eye, diabetes, certain medications especially ones that contain steroids.
- **Pigmentary glaucoma**, or pigment dispersion, blocks the drain of the eye with tiny granules of the eye's pigment, or the iris, after circulating through the fluid at the front of the eye.

- **Glaucoma suspect** is someone who has at least one of the risk factors for glaucoma, but does not have an actual glaucoma diagnosis yet. If you are labeled a glaucoma suspect, your doctor may want to see you more frequently to keep a close watch on your eye health and pressure.

Risk Factors for Glaucoma

Your doctor will more than likely label you as a glaucoma suspect if you have one or more of the following risk factors at work:

You are over 40 years old.

You have a family history of glaucoma.

You are of African, Hispanic or Asian heritage.

You already have high eye pressure.

You are farsighted or nearsighted.

You have had an eye injury in the past.

Your corneas are thin

You have been diagnosed with diabetes, migraines, hypertension, or poor circulation.

Treatment

Unfortunately, glaucoma damage is permanent, which is why it is so important to get regular eye exams, especially if you have any of the risk factors described.

Once a glaucoma diagnosis has been assigned, your doctor will be able to treat you with eye drops that can either decrease your eye fluid production or help to open up the drainage area in your eye. These drops would need to be taken every day, although they would be arresting the further development of the disease.

Your only other option, if your doctor decides it's necessary, is surgery. There are several kinds, depending on what the doctor sees as the cause of the glaucoma. You can have the place where your eyes drains fluid, opened up more, for example. Your doctor should discuss all of your treatment options with you in detail.

Your doctor will also more than likely want to see you more frequently, around every three to six months, depending on all of your factors.