

Advances in Glaucoma Diagnosis

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GLAUCOMA DIAGNOSIS

Glaucoma is a group of eye conditions that damage the optic nerve, the health of which is vital for good vision. This damage is often caused by an abnormally high pressure in your eye.

Glaucoma is one of the leading causes of blindness for people over the age of 60. It can occur at any age but is more common in older adults. Many forms of glaucoma have no warning signs. The effect is so gradual that you may not notice a change in vision until the condition is at an advanced stage.

There are two major types of glaucoma. 1) Primary open-angle glaucoma and 2) Angle-closure glaucoma.

Primary open-angle glaucoma

This is the most common type of glaucoma. It happens gradually; where the eye does not drain fluid as well as it should (like a clogged drain). As a result, eye pressure builds and starts to damage the optic nerve. This type of glaucoma is painless and causes no vision changes at first.

Some people can have optic nerves that are sensitive to normal eye pressure. This means their risk of getting glaucoma is higher than normal. Regular eye exams are important to find early signs of damage to their optic nerve.

Angle-closure glaucoma (also called “closed-angle glaucoma” or “narrow-angle glaucoma”)

This type happens when someone’s iris is very close to the drainage angle in their eye. The iris can end up blocking the drainage angle. You can think of it like a piece of paper sliding over a sink drain. When the drainage angle gets completely blocked, eye pressure rises very quickly. This is called an acute attack. It is a true eye emergency, and you should call your ophthalmologist right away or you might go blind.

Here are the signs of an acute angle-closure glaucoma attack: Your vision is suddenly blurry, you have severe eye pain, you have a headache, you feel sick to your stomach (nausea), you throw up (vomit), and you see rainbow-colored rings or halos around lights.

Many people with angle-closure glaucoma develop it slowly. This is called chronic angle-closure glaucoma. There are no symptoms at first, so they don’t know they have it until the damage is severe or

they have an attack.

Angle-closure glaucoma can cause blindness if not treated right away.

Glaucoma is the result of damage to the optic nerve. As this nerve gradually deteriorates, blind spots develop in your visual field. For reasons that doctors don't fully understand, this nerve damage is usually related to increased pressure in the eye.

Elevated eye pressure is due to a build-up of a fluid (aqueous humor) that flows throughout the inside of your eye. This internal fluid normally drains out through a tissue called the trabecular meshwork at the angle where the iris and cornea meet. When fluid is overproduced or the drainage system doesn't work properly, the fluid can't flow out at its normal rate and eye pressure increases.

Glaucoma tends to run in families. In some people, scientists have identified genes related to high eye pressure and optic nerve damage.

The damage caused by glaucoma can't be reversed. But treatment and regular check-ups can help slow or prevent vision loss, especially if you catch the disease in its early stages.

Glaucoma is treated by lowering your eye pressure (intraocular pressure). Depending on your situation, your options may include prescription eye drops, oral medications, laser treatment, surgery or a combination of any of these [1-5].

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