

WORLD GLAUCOMA WEEK- 2022

What is Glaucoma?

Glaucoma is a group of diseases that damage the optic nerve and can result in gradual vision loss and blindness. However, with early detection and treatment, you can often protect your eyes against serious vision loss. It's often associated with a buildup of pressure inside the eye. Glaucoma tends to be inherited and may not show up until later in life.

The increased pressure in eye (intraocular pressure) can damage the optic nerve, which transmits images to the brain. If damage to the optic nerve from high eye pressure continues, glaucoma will cause permanent loss of vision. Without treatment, glaucoma can cause total permanent blindness within a few years.



Can I develop glaucoma if I have increased eye pressure?

Not necessarily. Not every person with increased eye pressure will develop glaucoma. Some people can tolerate higher levels of eye pressure better than others. Also, a certain level of eye pressure may be high for one person but normal for another.

Whether you develop glaucoma depends on the level of pressure your optic nerve can tolerate without being damaged. This level is different for each person. That's why a comprehensive eye exam is very important. It can help your eye care professional determine what level of eye pressure is normal for you.

Who Gets Glaucoma?

Glaucoma most often occurs in adults over age 40, but it can also occur in young adults, children, and even infants. In African-Americans, glaucoma occurs more frequently and at an earlier age and with greater loss of vision. Diabetics and smokers are predisposed to develop glaucoma.

You are at an increased risk of glaucoma if you:

- Are of African-American, Irish, Russian, Japanese, Hispanic, Inuit, or Scandinavian descent
- Are over age 40
- Have a family history of glaucoma
- Have diabetes
- Take certain steroid medications
- Have had trauma to the eye

What Are the Symptoms of Glaucoma?

For most people, there are usually few or no symptoms of glaucoma. The first sign of glaucoma is often the loss of peripheral or side vision, which can go unnoticed until late in the disease. This is why glaucoma is often called the "sneak thief of vision."

Detecting glaucoma early is one reason you should have a complete exam with an eye specialist every one to two years. Occasionally, intraocular pressure can rise to severe levels. In these cases, sudden eye pain, headache, blurred vision, or the appearance of halos around lights may occur.

If you have any of the following symptoms, seek immediate medical care:

- Seeing halos around lights
- Vision loss
- Redness in the eye
- Eye that looks hazy (particularly in infants)
- Nausea or vomiting
- Pain in the eye/head
- Narrowing of vision (tunnel vision)

How is glaucoma detected?

Glaucoma is detected through a comprehensive eye exam that includes the following:

Visual acuity test. This eye chart test measures how well you see at various distances.

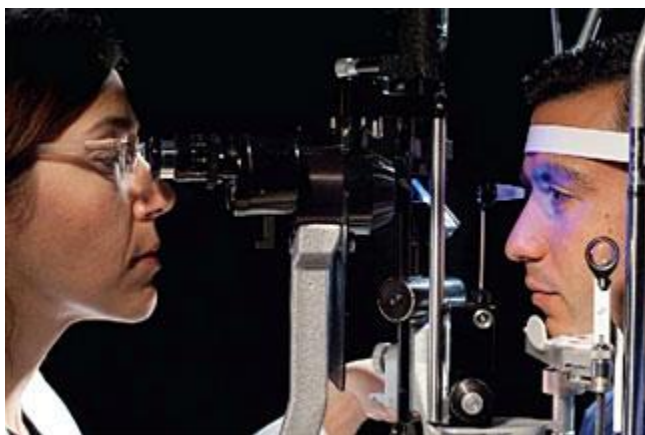
Visual field test. This test measures your peripheral (side vision). It helps your eye care professional tell if you have lost peripheral vision, a sign of glaucoma.

Dilated eye exam. In this exam, drops are placed in your eyes to widen, or dilate, the pupils. Your eye care professional uses a special magnifying lens to examine your retina and optic nerve for signs of damage and other eye problems. After the exam, your close-up vision may remain blurred for several hours.

Tonometry is the measurement of pressure inside the eye by using an instrument called a tonometer. Numbing drops may be applied to your eye for this test. A tonometer measures pressure inside the eye to detect glaucoma.

Pachymetry is the measurement of the thickness of your cornea. Your eye care professional applies a numbing drop to your eye and uses an ultrasonic wave instrument to measure the thickness of your cornea.

OCT is used to detect Glaucoma in early stage even earlier than visual field test by detecting changes in Retinal nerve fibre layer and ganglion cell loss.



Can glaucoma be cured?

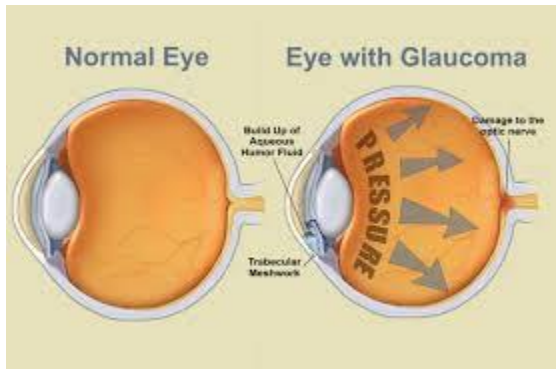
No. There is no cure for glaucoma but it can be controlled and its progression can be slowed down. Vision lost from the disease cannot be restored.

How Is Glaucoma Treated?

Glaucoma treatment may include eye drops, laser surgery, or microsurgery.

- **Eye drops for glaucoma.** These either reduce the formation of fluid in the eye or increase its outflow. Side effects of glaucoma drops may include allergy, redness of the eyes, brief stinging, blurred vision, and irritated eyes. Some glaucoma drugs may affect the heart and lungs. Be sure to tell your doctor about any other medications you are currently taking or are allergic to.
- **Laser surgery for glaucoma.** Laser surgery for glaucoma slightly increases the outflow of the fluid from the eye in open-angle glaucoma or eliminates fluid blockage in angle-closure glaucoma. Types of laser surgery for glaucoma include trabeculoplasty, in which a laser is used to pull open the trabecular meshwork drainage area; iridotomy, in which a tiny hole is made in the iris, allowing the fluid to flow more freely; and cyclocryotherapy which treats areas of the middle layer of the eye, reducing the production of fluid.
- **Microsurgery for glaucoma.** In an operation called a trabeculectomy, a new channel is created to drain the fluid, thereby reducing intraocular pressure that causes glaucoma. Sometimes this form of glaucoma surgery fails and must be redone. For some patients, a glaucoma implant is the best option. Other complications of microsurgery for glaucoma include some temporary or permanent loss of vision, as well as bleeding or infection.

Infant or congenital glaucoma -- meaning you are born with it -- is primarily treated with surgery, because the cause of the problem is a very distorted drainage system.



What research is being done?

Through studies in the laboratory and with patients, NEI is seeking better ways to detect, treat, and prevent vision loss in people with glaucoma. For example, researchers have discovered genes that could help explain how glaucoma damages the eye.

NEI also is supporting studies to learn more about who is likely to get glaucoma, when to treat people who have increased eye pressure, and which treatment to use first.



How should I use my glaucoma eyedrops?

If eyedrops have been prescribed for treating your glaucoma, you need to use them properly, as instructed by your eye care professional. Proper use of your glaucoma medication can improve the medicine’s effectiveness and reduce your risk of side effects.

To properly apply your eyedrops, follow these steps:

- Wash your hands.
- Hold the bottle upside down.
- Tilt your head back.
- Hold the bottle in one hand and place it as close as possible to the eye.
- With the other hand, pull down your lower eyelid. This forms a pocket.
- Place one drop into the lower eyelid pocket. If you are using more than one eyedrop, be sure to wait at least 5 minutes before applying the second eyedrop.
- Close your eye OR press the lower lid lightly with your finger for at least 1 minute. Either of these steps keeps the drops in the eye and helps prevent the drops from draining into the tear duct, which can increase your risk of side effects.