

# Educational Materials



NIH National Eye Institute

## Glaucoma: What You Need to Know

### What is glaucoma?

- Glaucoma is a group of eye diseases that can cause vision loss and blindness by damaging a nerve in the back of your eye called the optic nerve.
- The symptoms can start so slowly that you may not notice them. The only way to find out if you have glaucoma is to get a dilated eye exam.
- There's no cure for glaucoma, but early treatment can often slow down or stop the damage and protect your vision.

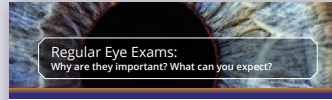
### What are the types of glaucoma?

There are many different types of glaucoma, but the most common type in the United States is called open-angle glaucoma – that's what most people mean when they talk about glaucoma. Another common type is angle-closure glaucoma. There are other types, but they tend to be more rare.



### Glaucoma at a glance

- Early Symptoms:** Often none
- Later Symptoms:** Loss of side



## Regular Eye Exams: Why are they important? What can you expect?

### Why do you need regular eye exams?

- To find out if you have glaucoma or not**
  - Many people who have glaucoma do not know it.
  - Glaucoma usually does not cause pain. So you may not know you have it.
  - Early and even sometimes advanced glaucoma might not change your normal vision much.
  - Glaucoma is a chronic disease that can worsen over time.

### To check on your glaucoma

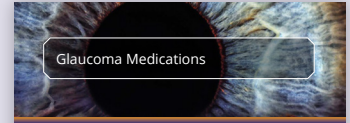
- It is not possible to monitor the disease on your own. You may not know your glaucoma is getting worse until it is worse.
- You usually cannot get back the vision you lose from glaucoma.
- Regular eye exams help doctors see if your glaucoma is controlled. Most glaucoma patients get eye exams every three to six months for their whole lives.
- Visits may be closer together if you have changes in your eye drops, have a laser procedure, or have surgery.
- Bringing a family member or friend to your eye exam may help in understanding all the tests and discussion you have with your glaucoma doctor.



### What can you expect at glaucoma eye exams?

#### Vision and eye pressure

- You will have your vision checked by reading letters on an eye chart.
- You will usually get eye drops to numb your eyes. This will help check your eye pressure. When your eye pressure is checked, it is important to keep both eyes open without winkinging and to breathe normally. Your doctor may use a blue



## Glaucoma Medications

Glaucoma causes damage to the optic nerve, the wire bringing vision to and from the brain. This can cause loss of vision, and blindness if not taken care of.

Having high eye pressure can cause glaucoma. Lowering your eye pressure can lower your risk of losing vision. High eye pressure happens when the fluid in your eye does not drain well. Your doctor can treat glaucoma with eye drops, pills, lasers, and/or surgeries. They all work to lower your risk of vision loss by lowering your eye pressure. There is no cure for glaucoma.

### What are glaucoma medications?

#### The most common is eye drops.

- Eye drops lower your eye pressure by lowering the amount of fluid your eye makes or by helping the fluid to drain faster.
- They will not get back any damage that has already happened, but they can keep your glaucoma from getting worse.
- Glaucoma is lifelong, so you may have to use eye drops for the rest of your life.

There are also pills for glaucoma, but because of their side effects, these pills are typically only used for a short time, for instance to lower very high eye pressure before eye surgery.

### How do I use glaucoma medications?

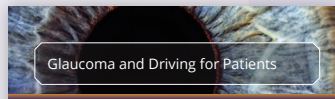
#### It is very important to use your eye drops as



What is  
glaucoma?

Regular  
eye exams

Glaucoma  
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## Glaucoma and Driving for Patients

If you have glaucoma, you may want to know if you can safely drive. Driving can be so important to your life that you may not know you have it. You may not feel the loss of your field of vision until later. For this reason, changes in your driving vision may be one of the first signs of glaucoma.

### How glaucoma can affect driving vision

Glaucoma can make your field of vision smaller over time. In the beginning you may not know you have it. You may not feel the loss of your field of vision until later. For this reason, changes in your driving vision may be one of the first signs of glaucoma.

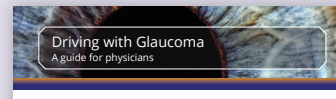
Glaucoma can also make your blind spot bigger, make you lose the way you see contrasting colors,

or it can make night driving worse. These can all be problems for you as a driver.

In the picture below, the person crossing the street is in the driver's missing field of vision. Even though the person is there, the driver does not see them. Based on your amount of vision loss, you may not see something in front of you.

If you have lost some of your field of vision, you may also have slower reaction times to respond to any changes in the road. This makes driving at night even more difficult.

You may notice your own driving vision problems, or it may be your family who see it first. Glaucoma usually gets worse as you get older. At the same time, you can have other eye problems, like cataracts, that can also change your driving vision.



## Driving with Glaucoma A guide for physicians

Patients with glaucoma often wonder about their ability to drive safely, and we as their doctors may struggle with how to answer their questions.

### How does glaucoma affect driving?

Glaucoma may impair driving skills with narrowing peripheral vision, enlarged blind spots, loss of contrast, blurred vision, and decreased night vision. These impairments can make driving challenging. Driving at night can become especially difficult. Since symptoms from glaucoma often do not become apparent or recognizable until the condition is quite advanced, changes to one's ability to drive may be one of the first signs of glaucoma. In some cases, it is a patient's family members who first notice difficulties with driving. Other eye-related eye diseases may also adversely affect driving.

### Dangers associated with driving with glaucoma

Multiple studies have considered the dangers associated with glaucoma and driving. People with visual field loss from glaucoma may have slower reaction time to respond to changes in road conditions. Another recent study found that older drivers with glaucoma had a 65% higher accident rate over 5 years compared with their peers without glaucoma.

### Good News

Many patients with glaucoma may continue to drive safely.

Clear legal limits in place that outline exactly when patients should no longer get behind the wheel.

- State Departments of Motor Vehicles typically require visual acuity of at least 20/40 and a horizontal field of vision with both eyes open of at least 120 degrees. <https://www.aaopt.org/Driving-Permissions.pdf>
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### Ways to better ensure the safe driving vision

- Encourage patients to get regular eye exams, keep eyeglasses and contact lens prescriptions up to date.
- Patented sunglasses and anti-reflection coating may provide additional vision and safety benefits.

For more information, please visit <https://www.aaopt.org/Driving-Permissions.pdf>



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glaucoma  
For Patients

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For Physicians