



# Glaucoma

## Glaucoma

Glaucoma is a progressive disease that results in damage to the optic nerve, which in turn affects vision. Glaucoma usually affects the elderly and the diagnosis is unusual in persons younger than 50 years of age.

The cause of glaucoma is unknown, however, inheritance may play a part. It may therefore be wise to consult with an ophthalmologist or nurse if there is a history of glaucoma in close relatives, primarily siblings or parents.

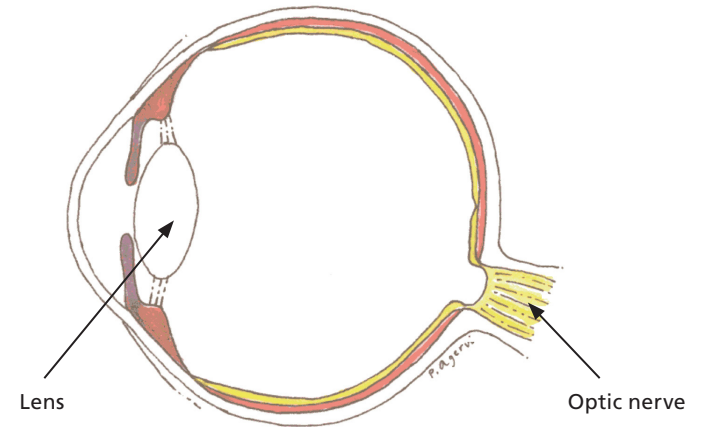


Image of the eye in cross-section, seen from the side. Glaucoma damages the optic nerve.



## How do you know if you have glaucoma?

Many persons have glaucoma without knowing it. This is because the symptoms at an early stage are very diffuse and visual acuity remains intact. Many experience "visual difficulties", without really being able to pinpoint the problem, others notice nothing at all. At a more advanced stage of the disease, a person with glaucoma will notice that parts of the visual field have disappeared and even visual acuity may have deteriorated.

Vision consists of visual acuity (which is tested with a visual acuity chart), and the field of vision (which is tested using instrument for visual field testing). Effects on the field of vision are illustrated in the images on the next page.

Symptoms of glaucoma usually develop gradually and may therefore affect the vision in different degrees, depending on which stage of progression the disease is diagnosed in.

Some patients experience eye pain as a first symptom of glaucoma. This only occurs with a more unusual form of glaucoma, which quickly increases eye pressure. In general, eye pain is an unusual symptom for glaucoma.

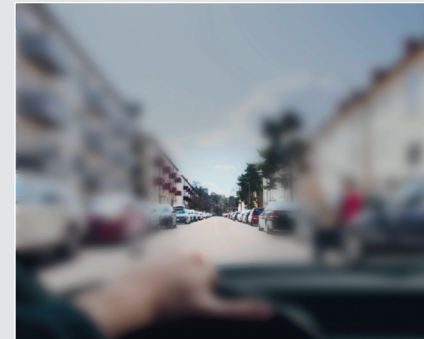
## Different degrees of glaucoma effects to the field of vision



1. Normal visual field.



2. At early-stage glaucoma the visual acuity is maintained, however, there are areas of the visual field with reduced acuity.



3. At advanced-stage glaucoma the visual field is patch-wise affected, resulting in a so called tunnel vision.

## How is glaucoma diagnosed?

To make a diagnosis, an ophthalmologist measures eye pressure and assesses if the optic nerve is damaged. This is done by examining the visual field and appearance of the optic nerve.

The connection between eye pressure and glaucoma may sometimes be confusing. There are patients with "normal" eye pressure that still have glaucoma and those who have high eye pressure but do not have glaucoma. It seems that increased eye pressure does not affect everyone in the same way. The determining factor for glaucoma is damage to the optic nerve, which is typical for the disease. If glaucoma is diagnosed, the patient undergoes treatment to reduce eye pressure.

Eye pressure may increase with time and reduce the effect of the treatment, which makes regular on-going eye check-ups necessary.

## How is glaucoma treated?

### Which drops are the "best"?

### Is there a surgical treatment for glaucoma?

There is currently no cure for glaucoma, but there are many ways to counter the deterioration of vision.

All glaucoma treatments (medicine, laser treatment and surgery) are intended to reduce pressure in the eye. The treatment does not improve vision, its purpose is to slow down the progression of the disease.



Pull down the lower eyelid. A "pocket" is then made for the eye drops to fall into. When you blink, the drops are spread over the eye.

Since treatment does not lead to visual improvement, many patients may be tempted to stop taking their eye drops. The result is the risk of increased damage to the optic nerve.

There are different types of eye medicine that reduce eye pressure. Some eye drops work better for certain people than others, so it is recommended to try out different drops to achieve the best results. Consideration must also be taken towards other illnesses and any other medicines being taken. If two different eye drops work equally well, then the price of the medicine should be considered.

When a patient has gotten used to taking eye drops regularly, it usually becomes a natural part of their daily routine. If different types of eye drops are to be taken at the same time, it is recommended to wait at least 5 minutes between the drops. If you are unsure whether the drops have entered the eye, it may be good to take an extra drop just to be sure. If you feel it is difficult to apply drops, do not be afraid to ask someone at the ophthalmology reception or the pharmacy for tips. There are drop supports available that can facilitate application (available at the pharmacy).

If laser treatment or operation for glaucoma comes into question, it is usually because the eye drops have not resulted in the desired reduction in eye pressure.

## How does the disease progress?

The perceived severity of the eye illness depends on the degree of damage to your vision. Many people with glaucoma do not notice their illness, while others experience the deterioration of their vision as a big handicap. Some patients' vision may deteriorate despite treatment, yet the deterioration is usually slower than without treatment. Blindness due to glaucoma is however unusual.

The chances of retaining the ability to see clearly increase with effective reduction of eye pressure and regular eye check-ups. It is important to take the eye drops regularly.

**This information is provided by the  
Stockholm Drug and Therapeutics Committee,  
Expert Panel for Eye Diseases**

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