

Eye clinic referral



This free booklet is brought to you by **Glaucoma UK**
(formerly the International Glaucoma Association).
Contact Glaucoma UK for further information or advice:

Glaucoma helpline: 01233 64 81 70

Monday-Friday 9.30am-5.00pm

Email: helpline@glaucoma.uk

glaucoma.uk

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Glaucoma UK is a registered charity that is here for everyone living with glaucoma throughout the UK.

- We raise awareness of glaucoma so that it is detected and treated early.
- We campaign for effective services for everyone affected by glaucoma.
- We provide advice and support to help people live well with glaucoma.
- We fund vital glaucoma research.



Campaigning & Awareness

Fewer
people
go blind



Advice & Support

People with
glaucoma live well
and stay well



Research

Better
diagnosis,
care and
treatment

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01 Introduction

This booklet has been designed for people who have just been told that they might have the eye condition glaucoma, and who are being referred to a specialist eye service for further tests.

It aims to help you understand what glaucoma is, what to expect at your eye clinic appointment, what to take with you, and what questions you might want to ask. It also gives sources of help and information if you are later diagnosed with glaucoma.

02 What is glaucoma?

Glaucoma is the name given to a group of eye conditions in which the main nerve in the eye (the optic nerve) becomes damaged, usually as a result of increased pressure in the eye.

The most common type of glaucoma (primary open angle glaucoma) starts very slowly, and to begin with there are no symptoms. So some people don't realise they have the condition until it is fairly advanced.

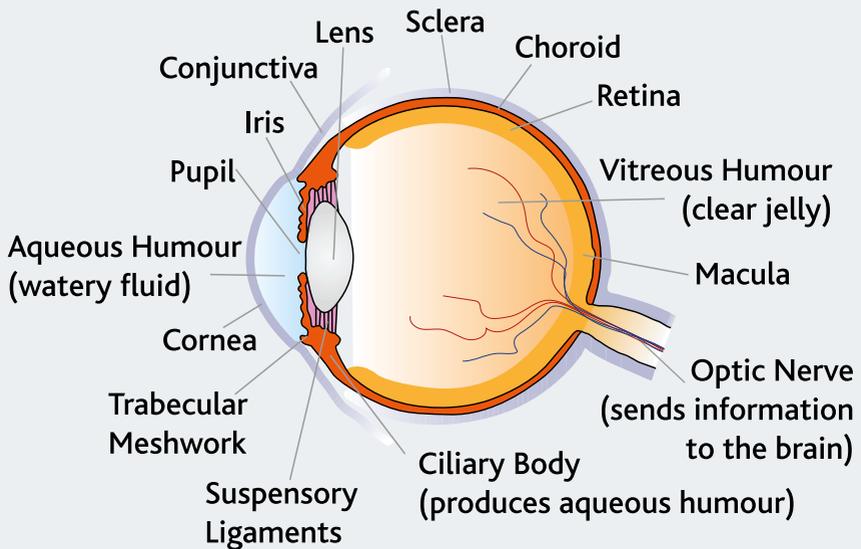
Eventually vision may become misty and patchy, and this worsens if left untreated. Glaucoma can eventually lead to blindness, although this is rare, especially if detected early and treatment is started and then continued. Most cases of glaucoma are picked up during routine eye health checks at an optometrist or optician. If your optometrist or GP suspects that you may have glaucoma, you'll be referred to an ophthalmologist (a doctor who specialises in diagnosing and treating eye conditions).

Other types of glaucoma include primary angle closure glaucoma, normal tension glaucoma, secondary glaucomas, and developmental glaucoma in babies and children.

Further information on all these glaucoma types can be found on the Glaucoma UK website at glaucoma.uk, or by calling our glaucoma helpline on **01233 64 81 70**.

Figure 1

Cross section through the eye showing the major structures, Health Press Unlimited (Oxford)



03 Before your appointment



Ask your relatives if there is anyone in the family who has glaucoma. If a close relative (a brother, sister or parent) has glaucoma, you are more likely to develop glaucoma than someone without a family history.

If your family have been affected, make a note and take this with you to your first appointment.

It is also a good idea to take the following items with you to your appointment:

- **your appointment letter**
- **all medicines and eye drops** (preferably in their original containers), or a letter from your GP listing all your medication - even those medicines that you only take occasionally
- **your spectacles and/or contact lenses** if you have any, including any cases, storage containers and solutions you use
- **sunglasses or a peaked cap** – some people find these useful after they have had drops put in their eyes
- **a pen and paper** to make notes, and a written list of questions you may want to ask

Many people find it helpful to take a friend with them to the appointment: there can be a lot of information to take in and two heads are often better than one.

04 At the first appointment

Your appointment will usually be at a hospital eye department. If you need to travel by car to the hospital, ask someone else to drive you back as the eye drops given to you may make your vision blurry.

Be prepared to wait as delays can happen for various reasons but you will be seen and it's very important for you to keep the appointment.

Information to tell the doctor

Please tell the doctor if you:

- have any other medical problems, for example high blood pressure or diabetes, and any chest or breathing problems. If you ever get short of breath in winter, but its summer and you feel fine, tell the doctor about it, especially if you have an inhaler
- have any eye symptoms
- have ever taken steroids
- have any family history of glaucoma
- want to understand more about the type of glaucoma you are diagnosed with

05 What to expect

The eye doctor or nurse will carry out up to six tests on your eyes, some of which you may be familiar with from visits to the optician. You may not have all of these tests, and the order they are done in may vary from hospital to hospital.

For most people using NHS eye services, the tests will take up to two hours to complete, but occasionally longer.

Visual field test

You may be familiar with this test from visits to your optician. You will be seated in front of the test machine, you lean slightly forward into it and rest your chin on a chin rest. Random lights are flashed across the field of vision, and you will be asked to press a button whenever you see a light.

The lights are bright or dim at different stages of the test; you are not necessarily expected to see all of the lights so only press when you know or think you have seen a light.

This test measures your whole field of vision – ‘side’ and ‘central’ - but it is not a test to see if you need glasses. You may find that the machine is a bit different to the one at your opticians. Remember, it’s OK to blink, and the test can be paused at any time.

Eye pressure test

The pressure inside your eye will be measured using an instrument called a tonometer. This is similar to the ‘air puff’ test done at an opticians during a routine eye health check, but again the equipment used in a hospital clinic will probably be slightly different.

The normal range for healthy eye pressure is between 10 and 24 millimetres of mercury (written mm Hg, the scale used for eye pressure).

Most people with glaucoma will have pressure over 20 mm Hg, although some people may have normal pressures but still have glaucoma (and some have raised pressure but no glaucoma) – each person is different, hence the range of tests required.

Optic nerve assessment

Before this test, you may be given eye drops to enlarge your pupils. These take around half an hour to start working, so you may be asked to go back and sit in the waiting area. The drops may make your vision blurry or your eyes sensitive to light (hence the sunglasses suggested earlier), but the effect will wear off after a few hours. After the dilating eye drops have taken effect, the doctor will use a magnifying device with a light attached to look at the back of your eyes, to assess the health of your optic disc.

Retinal/optical disk imaging

During this test the clinician will take pictures or scans

of the back of your eyes. This may help in determining whether an abnormality is present and will give the doctor results that they can compare to at future appointments, if such appointments are considered necessary.

Pachymetry

This test measures the thickness of the cornea and helps the doctor interpret the pressure measurements. An anesthetic drop is given to numb the eye, and then an instrument that looks like a small blunt pencil is brought up to gently touch the surface of the eye. It may make a ‘beep’ as the measurements are taken.

Gonioscopy

This test evaluates the internal drainage system of the eye. If there is a problem with fluid draining from the eye, the pressure can increase, creating problems. The eye is numbed with eye drops and the chin is placed on a chin rest. A mirrored lens, effectively a microscope, is used to look into the eye using a light to see the angle where the cornea and the iris meet. This test can help determine whether the angle is open or closed (which affects how fluid drains out of your eye), and can help to identify other issues that might be present.

06 After the tests

In most cases you will meet with an ophthalmologist after your tests, and be told what the results indicate (although in a few hospital eye units the results are reviewed remotely and you are informed of the result later).

If you have glaucoma, the doctor will be able to tell you how far the condition has developed and how much damage to your eyes has occurred. They will then recommend a course of treatment.

In some cases further tests and/or observations over time are needed in order to decide whether you do or do not have glaucoma (called 'glaucoma suspect').

There are several different treatments available, including eye drops, laser treatment and surgery. The best treatment for you will depend on your circumstances.

Eye drops

Eye drops are the most common treatment for glaucoma, and are usually the first thing clinicians use to manage the condition. There are several different types, but they all work by reducing the pressure in your eyes, so are usually needed for life. Eye drops can cause side effects, such as eye irritation, and some aren't suitable for people with

other medical conditions or who take other medication.

You may need to try several types before you find the one that works best for you, and some people will need to use more than one type at a time.

If eye drops are recommended, you will usually be given a prescription for one month's supply, and will need to start using them straight away. You will also need to go to your GP to obtain ongoing prescriptions.

Laser treatment

Laser treatment involves a high-energy beam of light being aimed at part of your eye to stop fluid building up inside it.

Laser treatment is usually carried out while you're awake. Local anaesthetic drops are used to numb your eyes, although you may feel a brief twinge during the procedure. You may still need to use eye drops after having laser treatment.

Surgery

Trabeculectomy is the most common type of surgery, and reduces the eye pressure by increasing the outflow of fluid from the eye.

New forms of less invasive surgery, known as MIGS (minimally invasive glaucoma surgery) are becoming more common. These procedures use tiny incisions and microscopic equipment to lower eye pressure. They are quicker to perform and have a faster recovery time.

Increasingly, lens surgery is used to treat some types of glaucoma, either alone or in combination with MIGS.

Glaucoma surgery is usually carried out under local anaesthetic, but sometimes under general anaesthetic.

Ocular hypertension

After the tests, you may be told that you don't have glaucoma, but that you do have ocular hypertension.

This simply means that you have raised pressure in one or both of your eyes but there is no damage to the optic nerve.

It is very important that people with ocular hypertension are monitored carefully so that if glaucoma starts to develop, treatment may be started at the earliest possible stage.

If the doctor thinks you have a high risk of developing glaucoma, you may be prescribed eye drops to control the pressure in the eye, as a preventative measure. These drops will be the same drops that are used to control glaucoma.

No treatment

This means no treatment will be given at this stage, but follow-up appointments may be arranged to check there are no signs of glaucoma developing in the future. This may apply if you are diagnosed with ocular hypertension. In some cases of glaucoma, doctors may recommend no

treatment but observation, particularly if the glaucoma is in its very early stages or if the lifetime risk of sight loss is low.

Patients may also decide to decline treatment recommended by their doctor, and this can be a valid choice (for example someone approaching the end of life whose glaucoma is advancing very slowly may understandably decide to avoid the inconvenience and possible side effects of various treatments).

After the first appointment

If you are advised to attend regular follow-up appointments to monitor your eyes and check that treatment is working, it is really important not to miss any, so make a note of when you should next be seen.

07 Questions to ask if you are diagnosed with glaucoma

- What type of glaucoma do I have?
- When should I be seen next? What is the safe maximum time before my next appointment?
- What should I do if my next planned appointment is postponed by the hospital?
- How will my vision be affected now and in the future?
- What is my expected prognosis?
- What are my treatment options, and what are the pros and cons of each?
- If prescribed medication, how long will I need to take it for, and will it interact with any other medications or dietary supplements I take?
- How will I know if the treatment is working?
- Is it hereditary and what should I tell my family about my condition?
- Do I need to change my lifestyle - for example my diet, the way I exercise, are there any activities I should avoid?



Other free advice booklets that may be helpful

- Glaucoma: A Guide
- Ocular Hypertension
- Eye Drops and Dispensing Aids
- Driving and Glaucoma
- Glaucoma and Your Relatives
- Cool Wallet for Eye Drops

All our information booklets are free and can be downloaded or ordered at www.glaucoma.uk

09

Further help and information from Glaucoma UK

Glaucoma UK is here for anyone affected by glaucoma. For help and advice:

Call our telephone helpline:

01233 64 81 70 (9.30am - 5.00pm Monday to Friday)

Email us with any worries or queries:

sightline@iga.org.uk

Visit our website **www.glaucoma.uk** for information and advice. You can also order a range of free booklets online and use the user forum to ask questions and share experiences with other people living with glaucoma

Call us to find out if there is a glaucoma patient support group in your area.

About Glaucoma UK

- We fund sight-saving research into the early detection and treatment of glaucoma
- We campaign to raise awareness of glaucoma so that no one loses their sight needlessly
- We provide support that helps people to live well with glaucoma

Each year in the UK over 11,000 people are diagnosed with glaucoma. We are passionate about supporting them and are committed to providing our services free of charge to anyone who needs them. It is only through the generosity of our supporters that we can do this.

Help us save sight and fund research

- make a donation by calling **01233 64 81 64**
- donate online at **www.glaucoma.uk**
- become a member for £17.50 a year. Join online or call **01233 64 81 71**

Your support will make a difference to people with glaucoma today and will protect future generations from unnecessary glaucoma sight loss.



The information in this leaflet was correct at the time of printing (printed 06/2020).

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Whilst every step has been taken to compile accurate information and to keep it up to date, we cannot guarantee its correctness and completeness.

Glaucoma UK and the author cannot take responsibility if you rely solely on the information in this booklet. The information provided is designed as an addition to, and not a substitute for, professional advice from a qualified doctor or other healthcare professional, which will be tailored to a patient's individual circumstances.

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