

Acute glaucoma

Introduction

This leaflet gives you information about acute glaucoma, the symptoms and the treatment given.

What is acute glaucoma?

This type of glaucoma is rare and can develop rapidly (acute) when the pressure of the fluid inside the eye rises too quickly.

Normally fluid (aqueous) is produced in the front part of the eye behind the pupil. It circulates through the pupil into the front chamber of the eye, and drains away into the bloodstream.

People who are at risk of developing acute glaucoma have an eye which is smaller than normal. Their front chamber is particularly small and this affects the circulation of the aqueous (fluid).

As you get older the lens also gets 'fatter', pushing the iris forwards and making the front chamber even narrower. In this situation the circulating aqueous (fluid) can become trapped behind the iris, pushing it forwards and stopping fluid draining away from the eye. The fluid is then trapped in the eye and the pressure rises.

When the pressure is high, the sensitive optic nerve is damaged, affecting your eyesight.

Because this pressure rise can happen very quickly, it is called an attack of acute glaucoma.

Will I get acute glaucoma?

If you have a small eye (that is if you are long sighted) you are more likely to get an attack, especially as you get older and develop cataracts. Your optician will look at your eyes in routine checks and if it looks as if your eye may be at risk of an attack you will be referred to the hospital for further assessment. It is better to anticipate problems and prevent an attack if possible. If it is considered necessary, you will be advised to have laser treatment to avoid future problems.

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Department

Ophthalmology

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**Patient
Information**

Symptoms of acute glaucoma

Warning symptoms

In the evening, when the light dims, you may notice 'haloes' or coloured rings around lights. The eye may become slightly red and painful. The symptoms will go when you go to sleep but may return again the following evening.

Tell your doctor immediately if you have these symptoms.

Acute attack

This is an emergency and you need to seek medical treatment as soon as you can.

You may have:

- Very severe eye pain
- A red eye
- Poor vision
- Nausea and vomiting
- Abdominal pain

'Chronic' acute glaucoma

This is unusual but sometimes acute glaucoma can act more like chronic glaucoma and there are none of the symptoms mentioned on the previous page. This glaucoma develops over years.

Treatment of an acute attack

You will be admitted to hospital as you will be feeling very poorly and will need urgent treatment.

1. You will have your vision tested and the pressures of your eyes will be checked using a special probe, this is usually done by the nurses.
2. The doctor will then examine your eye and give you eye drops to lower the pressure. These drops are usually administered every 15 minutes until the pressures come down. The doctor will also give you a drug to lower the eye pressure. This can be given as a tablet or through a cannula (thin tube) inserted into a vein in your arm, so that it works very quickly. You will have to wait for the pressure to return to normal which can take a few hours. The doctor may decide to admit you into hospital overnight if the pressure does not come down quickly.

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3. If the pressure responds to this treatment, the eye will settle and become less painful. As soon as the eye is improving, you will have laser treatment to make a hole in the iris of the eye. This will enable the aqueous (fluid) to circulate freely again. The other eye will need the same laser treatment as there is a high risk that it may develop an acute attack of glaucoma in the future. The laser treatment will be performed in clinic – please read leaflet GHPI0353 ‘Eye laser treatment – Yag iridotomy’ for more information.
4. If the pressure does not respond adequately to this treatment, you will need to have a cataract surgery. This is because replacing the big natural lens of the eye with a thinner plastic lens creates space inside the eye and lowers the eye pressure (you can read more about this in leaflet ‘What is a cataract’ GHP10100_04_22). Rarely a pressure lowering operation to the affected eye is required – this is called a **trabeculectomy**. You can read more about this operation in leaflet GHPI0206 ‘Trabeculectomy’ for the treatment of glaucoma.
5. Long term treatment with drops – sometimes this is required to keep the eye pressure within the normal range and stop further damage to your eye.

Will my vision return to normal?

If you have an attack which is treated promptly, there should be very little damage to your vision. However, if there is a delay in diagnosis and treatment, then permanent damage to your sight will happen.

Can I continue to drive?

As in all types of glaucoma, you should check whether your eyesight and visual fields pass the legal DVLA requirements. Ask the clinic doctor if you need any special eye ‘fitness to drive’ tests.

If you have any questions or concerns about glaucoma or your treatment, please ask the clinic doctor at your next visit.

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Making a choice

Shared Decision Making

If you are asked to make a choice, you may have lots of questions that you want to ask. You may also want to talk over your options with your family or friends. It can help to write a list of the questions you want answered and take it to your appointment.



Ask 3 Questions

To begin with, try to make sure you get the answers to three key questions if you are asked to make a choice about your healthcare.

1. What are my options?
2. What are the pros and cons of each option for me?
3. How do I get support to help me make a decision that is right for me?

These resources have been adapted with kind permission from the MAGIC Programme, supported by the Health Foundation

* Ask 3 Questions is based on Shepherd HL, et al. Three questions that patients can ask to improve the quality of information physicians give about treatment options: A cross-over trial. Patient Education and Counselling, 2011;84: 379-85



<https://aqua.nhs.uk/resources/shared-decision-making-case-studies/>