



# The 10 Most Googled Glaucoma Questions Answered

Glaucoma is a common and serious eye condition, so it's important to understand what it is, how to spot the warning signs and what treatment options are available. To ensure you're in the know, we've answered the 10 most Googled questions on this topic.

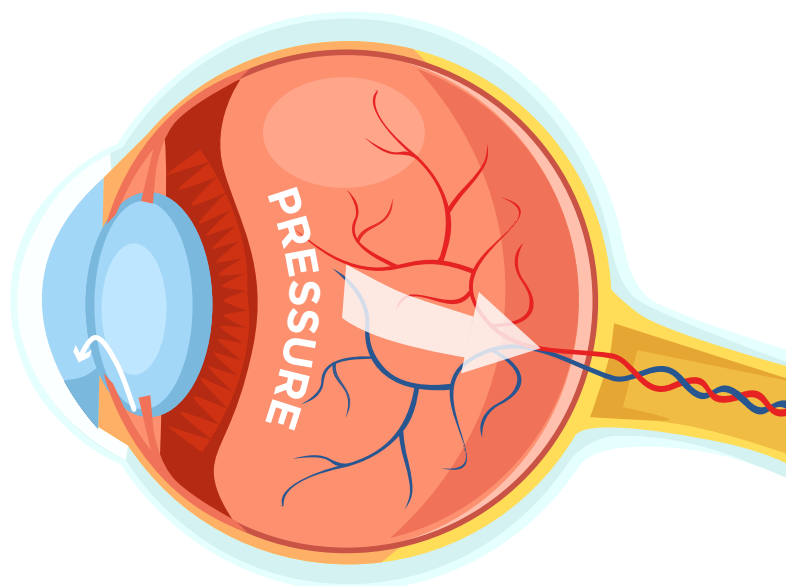
# 1

## What is glaucoma?

Glaucoma is a group of conditions that cause progressive damage to the optic nerve at the back of the eye. It is eye pressure sensitive, causes characteristic visual field defects and is blinding. It is one of the most common causes of blindness in the UK and globally.

This degenerative condition progresses slowly over a period of years, initially leading to peripheral vision loss before any central vision is affected. This means it is largely asymptomatic to begin with, which is why it is often referred to as the 'silent thief of sight'.

In the UK, it is estimated that two per cent of people over the age of 40 have glaucoma, rising to 10 per cent in people over 75 years old.<sup>1</sup>



High pressure damages optic nerve



# 2

## Is glaucoma hereditary?

There is a strong genetic link with glaucoma, especially with the most common type, known as primary open angle glaucoma. If an immediate family member (for example, a parent or sibling) has glaucoma, you have four to nine times the risk of developing the condition than the rest of the population.

<sup>1</sup> [www.nice.org.uk](http://www.nice.org.uk)

# 3

## Can glaucoma be cured?

At present there is no cure for glaucoma. Once the optic nerve has been damaged, it can't be regenerated. There is much research going into restoring sight loss caused by glaucoma and providing more protection for the optic nerve. This is focused on gene therapy and neuro-protection.

However, at present the aim of treatment is to slow down and, if possible, halt the progression of the condition to prevent blindness in a patient's lifetime. This emphasises the importance of earlier detection and effective management of the condition, and the need for regular eye examinations by your optometrist - especially for the higher risk groups - to pick it up as soon as possible.



# 4

## Can you drive with glaucoma?

### **Group 1 drivers (car, motorbike):**

If your glaucoma affects one eye, you are required to tell the DVLA only if you have a medical condition that affects your other eye or you are not able to meet the visual standards set out for driving. If glaucoma affects both your eyes, you must inform the DVLA regardless.

### **Group 2 drivers (bus, coach, lorry):**

You are required to inform the DVLA if you have glaucoma in one or both eyes. The DVLA will need to check that you are safe to drive by testing your visual acuity in both eyes and your binocular field of vision to ensure it meets the legal driving standard.

A close-up photograph of an elderly man's face, focusing on his right eye. A hand is visible on the left side of the frame, holding a white, cylindrical object (possibly a pen or a small tool) near the man's eye. The man's skin is wrinkled, and his eye is looking towards the camera. The background is a plain, light color.

# 5

## What is the first sign of glaucoma?

The first clinically detectable signs of glaucoma are defects in the retinal nerve fibre layer around the optic nerve head at the back of the eye. This in turn leads to damage and loss of the optic disc's neuro-retinal rim and gives rise to an increased cup-to-disc ratio. This structural damage at the optic disc leads to functional damage in the visual field. It can be picked up by an experienced clinician and using an Ocular Coherence Tomography (OCT) machine.



# 6

## How do you treat glaucoma?

At present, lowering eye pressure is the only way to control glaucoma. The aim of treatment is to slow down the progression of the condition to prevent blindness during a patient's life. There are various treatment options available to patients depending on the type of glaucoma they have. They include:

### Eye drops

A range of eye drops can be administered to reduce eye pressure. They are normally applied once or twice a day.

### Selective laser trabeculoplasty (SLT)

Laser treatment to the trabecular meshwork (drainage 'sieve' of the eye) is designed to increase outflow of fluid from the eye and hence lower eye pressure.

### Surgery

#### i) Traditional surgery

Trabeculectomy or aqueous shunt (Tube) surgery is designed to create another route for the outflow of eye fluid.

#### ii) Minimally invasive glaucoma surgery (MIGS)

Carried out using newer devices, this surgery is less invasive and it's usually conducted at the time of cataract surgery.

# 7

## How can you prevent glaucoma?

Currently there are no ways to prevent glaucoma, but severe visual loss and blindness can be largely prevented by early detection and effective management of the condition.

Treatments aim to slow down and, if possible, halt the progression of glaucoma to preserve functional vision. Thus, regular eye examinations are very important, especially for people in the higher risk groups.



# 8

## What does glaucoma look like?

Glaucoma most commonly affects both eyes, but at first it's often noticed more in one eye than the other. In the early stages, it causes small defects in the field of vision. As the disease progresses, it begins to affect more of the peripheral (side) vision and eventually in advanced cases, it leads to tunnel vision in both eyes (although central vision may still be very good).

Ultimately, the central vision begins to be affected and this can progress to blindness. Thus, patients can be largely asymptomatic until very late on in the disease, as their central vision seems fine. They are unaware of their deteriorating peripheral vision.



# The Stages of Glaucoma



**Normal Vision**



**Early Glaucoma**



**Moderate Glaucoma**



**Advanced Glaucoma**

# 9

## Can eye drops for glaucoma affect the heart?

There are four main classes of drops in the topical treatment of glaucoma and two of them can have potential effects on the heart. Clinicians need to take this into account before prescribing these drops.

Firstly, beta-blockers (most commonly Timolol) can cause reduced heart rate. Because of this, they are not recommended in patients with bradycardia, heart block, uncontrolled heart failure and severe hypotension.

Secondly, alpha-agonists (most commonly Brimonidine and Iopidine) can cause a theoretical increased cardio-vascular risk profile in patients with a history of stroke, angina, heart attack or previous heart surgery.



# 10

## Can rubbing your eyes cause glaucoma?

Rigorously rubbing or squeezing your eyes can cause a transient rise in eye pressure. Rubbing of the eyes can also lead to changes in the corneal structure, leading to astigmatism and keratoconus. Although rubbing your eyes doesn't cause glaucoma, if someone who already has this condition regularly and rigorously rubs their eyes, there is a theoretical risk that the spike in eye pressure can worsen their glaucoma over time.



The most important thing you can do when it comes to protecting your vision from the effects of glaucoma is to ensure you have regular eye tests. We hope this eBook has answered your questions on this crucial health issue.

