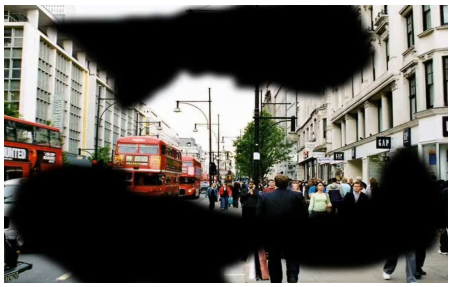
GLAUCOMA

The Village optician Ltd
MICHAEL GREENBERG, BSc (Hons), MCOptom.
OPHTHALMIC OPTICIAN & CONTACT LENS PRACTITIONER

Q What is glaucoma?

A Glaucoma is the name for a group of eye conditions in which the optic nerve is damaged at the point where it leaves the eye. This nerve carries information from the light sensitive layer in your eye (the retina) to the brain. Damage to this nerve results in blind spots in the periphery of your vision. If left untreated these blind spots get bigger, resulting in tunnel vision and eventually blindness. However, if the condition is diagnosed and treated early enough, further damage to your vision can usually be prevented.



In the UK, glaucoma affects approximately 2% of the population. The risk of developing glaucoma increases as you get older and is greater in some ethnic groups such as those of African descent.

The most common type of Glaucoma does not cause any pain or discomfort and you are unlikely to be aware that you have the condition until substantial damage has already occurred. The only way that it can be detected is by having regular eye examinations.

Q What causes glaucoma?

A The exact cause of glaucoma is still poorly understood. However, it is thought that it relates to the relationship between the pressure in the eye and the pressure in the blood vessels supplying the eye.

Your eye needs a certain amount of pressure to keep the eyeball in shape. The pressure is largely determined by the pressure in the chamber at the front of the eye which is filled with a watery liquid known as aqueous. The aqueous is produced in a gland just behind the iris (the coloured part of the eye) and flows through the pupil before draining out of small channels in the angle between the iris and the cornea at the front of the eye. If either the gland produces too much water or

it does not drain quickly enough, the pressure in the eye builds up. Thisin turn restricts the blood flow to the nerves at the back of the eye and eventually leads to glaucoma.

However, some people develop glaucoma even when the pressure in the eye is normal while others seem to tolerate high pressure without developing glaucoma. In most cases, decreasing the pressure in the eye (usually with drops) slows or halts the progression of the condition.

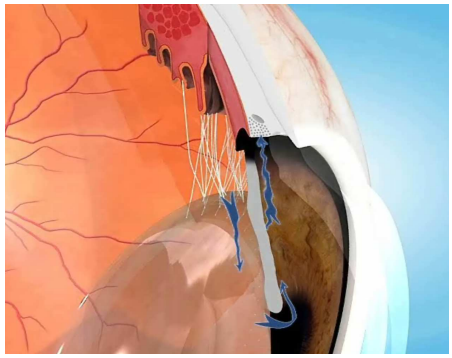
Q **Are there different types of glaucoma?**

A Yes, there are a number of different types of glaucoma. However, the most common are the following:

Chronic (open angle) glaucoma.

Open angle glaucoma is the most common type of glaucoma. It develops very slowly, so you may not realise that it is happening. Open angle glaucoma occurs when the drainage tubes within the eye become slightly blocked, preventing the aqueous from draining properly.

When the aqueous cannot drain properly, pressure builds up (intraocular pressure) which can cause damage to the nerve fibres at the back of the eye.



Acute (angle closure) glaucoma occurs when the angle through which the aqueous drains at the front of the eye becomes very narrow or closes altogether. This restricts the drainage and the pressure can increase dramatically. When this happens the eye becomes very painful and red and vision becomes hazy. If this occurs you should go straight to the eye department of your local hospital. Although this is a very painful condition, there are usually no long-term effects if action is taken after the first attack. Fortunately, acute angle closure glaucoma is quite rare.

Q **How do I know if I have chronic glaucoma?**

A Chronic glaucoma does not cause any pain or discomfort and by the time you notice

some blindspots in the periphery of your vision, substantial damage may have already occurred. For this reason it is very important to have regular eye tests so that problems like this can be detected and treated as early as possible. Once you are over 40 years of age, you should have an eye test every two years. You should also have regular eye tests if you are over 30 years of age, and you have a close blood relative with glaucoma (for example, a parent, sister, or brother).

There are three tests that your optometrist will perform to detect glaucoma. They will examine the back of your eyes for any signs of nerve damage, they will measure the pressure in your eyes (tonometry) and they will check that you can see out of the corner of your eyes (visual fields).

Q How is chronic glaucoma treated?

A If your optometrist suspects that you may have glaucoma, you will probably be referred to the local hospital for some further tests. If the diagnosis is confirmed you will be offered treatment.
The aim of all treatment for chronic glaucoma is to reduce the pressure in your eye. This is usually achieved with eye drops. However, in the rare cases where this does not work, laser treatment or surgery may be recommended.

Q Will treatment restore my vision?

A If you already have some loss of vision as a result of glaucoma, treatment will not restore your vision but it will slow down or halt further damage. However, your optometrist will be able to help you make the most of your remaining vision with spectacles and low vision aids if required.