

Ophthalmics

Understanding glaucoma





What is glaucoma?

Glaucoma is an eye disease that is associated with a build-up of fluid within your eye. This build-up of fluid increases the pressure in your eye and can damage the nerve that carries visual information to the brain (called the 'optic nerve'). As a result, your eyesight is affected.

In a healthy eye, a fluid (called 'aqueous humor') is continuously produced within the eye. This fluid circulates around the eye, bringing important nutrients to the 'cornea' and the 'lens'. The fluid then drains away through tiny holes (called the 'trabecular meshwork'). This constant production and drainage of fluid keeps the eye moist and healthy.

In a glaucoma eye, more fluid is produced than is removed from the eye. This results in a build-up of fluid that increases the pressure within your eye (called 'intraocular pressure'). This pressure affects all parts of your eye, but often causes most damage to your 'optic nerve'.

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As glaucoma progresses, blank patches appear in your peripheral vision.



Damage to your eyesight

Glaucoma affects your 'wide-angle vision'. This is the outer edge of your vision or your 'peripheral vision'. Because glaucoma develops slowly you may not have noticed any problems with your eyesight, until now.

As glaucoma progresses, blank patches appear in your peripheral vision, so you can no longer see as much, or as clearly, as you did before.

If the glaucoma is not detected in time or not properly treated, it could, in extreme cases, lead to significant vision impairment. Thankfully, with a higher level of awareness and modern diagnostic techniques, this is now very rare.

But there is good news!

Whilst the damage already done to your eyesight cannot be repaired, the good news is, that with the regular use of appropriate treatment (such as eye drops or tablets), your doctor can prevent or delay further damage to your 'wide angle vision'. Surgery may also be an option, depending on your circumstances.

Images are for illustrative purposes only.

The different types of glaucoma

There are two different types of glaucoma: 'open-angle' glaucoma and 'angle-closure' glaucoma.

Open-angle glaucoma is a common, 'chronic' condition (which means it continues for a long time). This type of glaucoma is caused by a blockage in the drainage system of the eye and is often detected through a routine eye examination.

Angle-closure or 'over-production of fluid' glaucoma is a much rarer 'acute' condition (which means it is brief but severe, and the symptoms are obvious). It can cause significant vision impairment in a short amount of time if it is not treated. This type of glaucoma is caused when the angle of the entrance to the drainage system closes up, so the fluid cannot drain away.



Glaucoma can be caused by another disorder or condition affecting the structure or function of the eye. This is known as 'secondary glaucoma'.

Secondary 'chronic' glaucoma can be caused by a swelling or growth in the eye.

Secondary 'acute' glaucoma can happen in people who have diabetes, cataracts, or persons undergoing long-term steroid therapy; however, this is rare.



How is glaucoma diagnosed?

Early detection and diagnosis of glaucoma is the key to preventing damage to your eyesight. Although you may not yet be aware of any symptoms, there could be early signs of damage to your eye that your doctor will be able to detect with some routine tests.

Tonometry

Your eye doctor will do a 'tonometry' test to measure the pressure in your eyes. A tonometer is a machine that measures 'intraocular pressure' by applying a force to the eye.

Funduscopy

A 'funduscopy' test allows your eye doctor to look at your optic nerve with an instrument called an 'ophthalmoscope'. This enables your doctor to see any signs of damage to the optic nerve.

Visual Field Testing

Your eye doctor will also want to check whether your field of vision has been affected. Your field of vision can be measured using a variety of different tests. It is important to take these types of eye examination regularly as they can pick up tiny changes in your eyesight that you might not notice yourself.

How is glaucoma treated?

Whether glaucoma starts gradually, or comes on suddenly and painfully, delaying treatment can lead to serious problems.

The type of treatment you are given will depend on your type of glaucoma.

Treating chronic glaucoma

The main way to treat this type of glaucoma is with eye drops that either reduce the amount of fluid produced in the eye or help the fluid to drain away more effectively. Some eye drops are designed to do both of these things at the same time.

The main types of eye drops used are:

- Beta blockers
- Carbonic anhydrase inhibitors (CAIs)
- Prostaglandins
- Adrenergics
- Cholinergics

Carbonic anhydrase inhibitors can also be given in tablet form or directly into the bloodstream via a needle.

Surgery is only used when your glaucoma does not get better with these standard treatments, or if it gets worse despite successfully reducing the pressure in your eye.

Your eye doctor will help you decide which type of treatment is best for you.

Treating acute glaucoma

When acute glaucoma happens, your eye doctor will do two things. Firstly, they will give you one of the treatments previously mentioned to reduce the pressure in the eye and help relieve your painful symptoms. Secondly, using laser surgery, they will open the angle of the entrance to the drainage system to enable the fluid to drain away.

Important!

Regular treatment can limit or slow the development of glaucoma and help maintain your current eyesight.

It is therefore important that you take your medicine as recommended by your doctor. Remember, glaucoma can start gradually and you may not yet have noticed any symptoms.



Before you start

- Use your eye drops as recommended by your doctor.
- If you are using more than one kind of eye drop, please refer to the dosing instructions that come with each one.
- Always wash your hands before using your eye drops.
- Never touch your eye with the tip of the eyedropper.
- As with all forms of medication, it is best to keep your eye drops out of the reach of children.

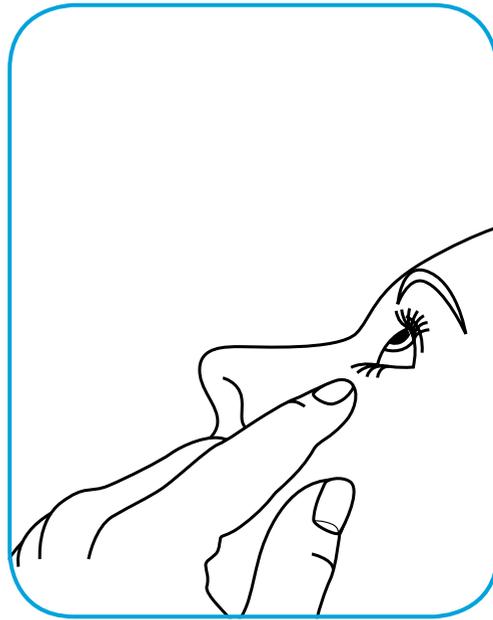
How to use your eye drops

The following instructions apply whether you are using a bottle or single dose container.

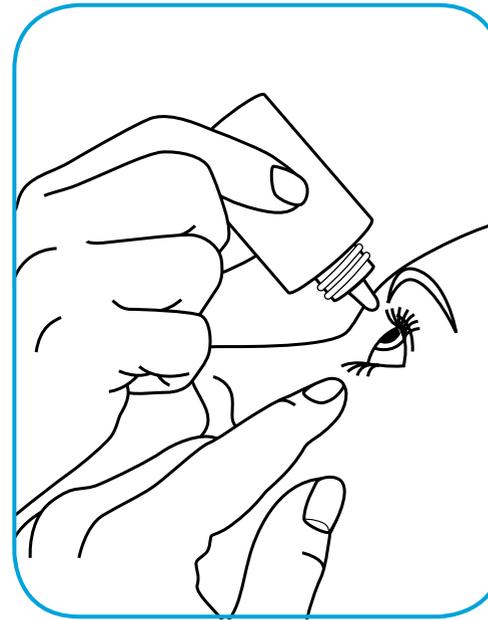
Please read these instructions carefully before using your eye drops.

Important:

- If you are using a bottle, it will normally last one month from the day you open it.
- You must then exchange it for a new one, even if you haven't finished it.
- If you are using a single dose container it must be used only once and must be discarded immediately after use.

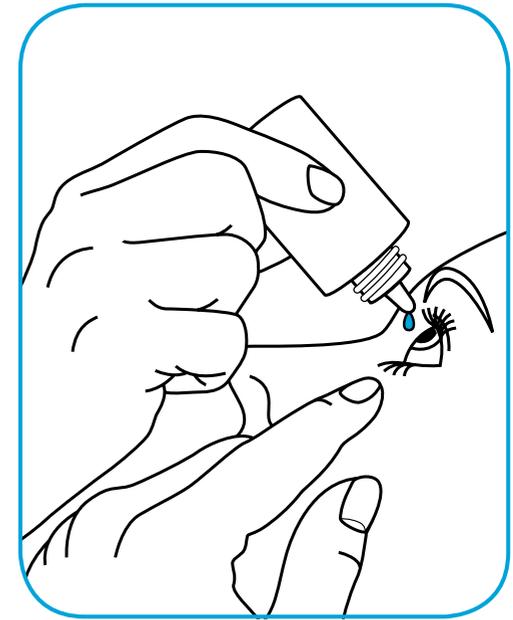


Step 1



Step 2

Turn the dispenser upside down.



Step 3

Squeeze the dispenser gently. Place the number of drops your doctor has recommended into the pocket of your lower eyelid.

Close your eyes for 1 or 2 minutes to allow the drop(s) to be absorbed by the eye.

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This document is not intended to replace the advice of your doctor/pharmacist. Please refer to your doctor/pharmacist for further information about your glaucoma.



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