

## GLAUCOMA

***This information sheet is for your information and is not a substitute for medical advice. You should contact your doctor or other healthcare provider with any questions about your health, treatment or care.***

### **What is glaucoma?**

Glaucoma is the build-up of pressure in the eye, called intra-ocular pressure (IOP), combined with other risk factors. This leads to long-term damage to the optic nerve and eventually visual loss if left untreated.

In most types of glaucoma, the eye's drainage system becomes blocked so that the intra-ocular fluid cannot drain adequately.

Glaucoma leads to gradual visual loss. Even people with 'normal' pressure levels in the eye may experience vision loss from glaucoma. Sometimes no symptoms are present during the early stages of the condition. Early detection is vital to prevent the progression of the condition.

### **Facts and figures**

- Glaucoma may cause blindness if left untreated; however, approximately 10% of people receiving treatment still experience loss of vision.
- Glaucoma is a chronic condition. Loss of vision cannot be regained and lifelong monitoring is necessary.
- All ages are at risk of developing glaucoma; however, the risk is higher in the elderly.
- The most common form of glaucoma, known as open-angle glaucoma, has virtually no symptoms. Visual loss is usually peripheral (all that is visible to the eye outside the central area of focus) and goes mostly unnoticed.

### **Treatment of glaucoma**

#### *Approach to treatment*

Treatment is more likely to be successful if started early. Once vision is greatly impaired, treatment may prevent it from worsening, but it usually cannot restore vision completely.

#### *Initiation of treatment*

The approach adopted by most ophthalmologists (eye specialists) is to select and treat only those patients thought to be at a greater risk of blindness. Medication will be prescribed after the specialist has evaluated the effects of, and interaction with, other medication.

#### *Surgery*

Surgery is required when optic nerve damage due to glaucoma is expected to worsen at any given level of IOP and the patient is on maximum medical therapy.

Some patients' conditions may worsen simply because they have failed to comply with their medical regimen because of:

- high medication costs
- inability to remember the schedule of multiple medications
- inability to properly put the drops in the eyes, secondary to using medication for arthritis or other incapacitation, which is a problem especially common among elderly patients or those with other chronic systemic conditions
- intolerable side effects.

### **There are various surgical options available:**

#### **1. Laser surgery**

- This is performed under local anaesthetic.
- Use of medication following laser surgery: In many cases medication is still required to control IOP; however, the amount of medication may be reduced.
- Recovery only takes one day. The procedure takes place in the doctor's rooms or at an eye clinic. The eye may be blurry and irritated after surgery, but normal activities can be resumed by the next day.

## 2. *Filtering microsurgery*

- This procedure can be done under general anaesthesia or under local anaesthesia with an intravenous injection to sedate the patient. This is an outpatient procedure requiring no overnight stay.
- The success rate of this procedure is 70% to 90% for at least one year. In younger patients, the 'hole' heals more rapidly. Healing may be slowed down by drugs. If needed, this surgery can be repeated a number of times on the same eye.
- Please obtain full information about recovery from your doctor. Water must be kept out of the eye for one week after surgery. Blurred vision may occur for about six weeks after surgery. Eye drops (e.g. pilocarpine) can improve vision during this time. Cataracts (opaque tissue that forms in the eye and affects sight) may rarely develop. Change of contact lenses may be needed after surgery.

## 3. *Drainage implant (seton tube shunt) surgery*

A tube is inserted into the eye, which improves drainage of the fluid and subsequently promotes lowering of eye pressure.

## 4. *Ciliary body ablation*

This procedure is also known as cycloablation, which involves the permanent destruction of the ciliary body and is considered to be a 'last resort'.

## 5. *Physical activity*

Some studies show that a moderate amount of exercise may decrease IOP in both glaucoma patients and normal individuals. Whether it results in actual long-term IOP control and prevention of visual loss has yet to be determined.

## **Helpful hints**

### *Eye drop tips*

- Always wash your hands before putting in eye drops.
- Do not let the tip of the dropper touch any part of your eye.
- Ensure that the dropper stays clean.
- When putting more than one drop into an eye, wait five minutes before putting in the next drops. This prevents drops from being washed out before they have had a chance to work.
- Store all medication out of reach of children.

### *How to put in eye drops*

- Tilt your head backwards slightly and look up.
- Gently pull down on the lower lid to form a pocket.
- Let a drop fall into the pocket.
- Slowly let go of the lid, but do not shut eyes tight.
- Gently press on the inner corner of your closed eyes for about three minutes to prevent drops from draining from the eye too quickly.
- Blot excess drops away from the eye.
- If your hands are shaky, approach from the side to rest your hand on your face for steadiness.
- If the bottle feels too small, wrap a small towel around it to make it easier to handle.

### *Daily life*

- Schedule medication around daily routines, such as meal times.
- Share feelings and fears about glaucoma with your healthcare provider, as well as people you trust.
- Some visual phenomena may be problematic, such as loss of contrast sensitivity and problems with glare.
- Limit night driving if night vision is a problem. Consider symptoms like side-vision loss, light sensitivity, blurred vision and 'near misses' as significant indicators to possibly even stop driving altogether.
- Yellow, amber and brown sunglasses or tinted lenses are useful for photosensitive problems. Glaucoma medication may even aggravate sunlight problems. Choose lenses that block UV rays. Sunglasses should screen out 75% to 90% of visible light. Patients who suffer regularly with eye problems due to sun exposure should limit their exposure as far as possible. Also wear broad-rimmed hats.
- Always remember storage conditions for medication and refer to the package inserts for details.
- Do not ignore a painful, red eye after surgery, especially with a discharge – it could indicate an infection and will need treatment urgently.

- Be aware of your workplace environment as it relates to your glaucoma, especially with regard to lighting and glare-reducing computer screens. Ensure that your employer is aware of your special needs to adequately fulfil work duties, but also to assist with the management of your condition.

**Additional resource**

<https://www.sags.co.za/website/#patientInfo>

**Reference**

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