

## Health of the older person: Glaucoma

Glaucoma is a disease of the eye that can occur at any age, but it is more common on older people. Glaucoma is one of the leading causes of blindness in New Zealand. When diagnosed early, blindness from glaucoma is almost always controllable with ongoing treatment.

It is estimated that over 60,000 New Zealanders have a diagnosed glaucoma and as our population becomes older the proportion of glaucoma patients is increasing. Because there are usually no symptoms associated with glaucoma, around 50% of people with the disease are unaware of it and consequently are not receiving treatment.

Glaucoma is commonly associated with increased pressure within the eye but the term glaucoma actually refers to a group of eye diseases in which the optic nerve is slowly destroyed. In most people this damage is indeed due to increased pressure inside the eye resulting from blockage of the circulation of aqueous, or its drainage. In other patients the damage will be caused by poor blood supply to the fibres of the optic nerve or problems in the health or structure of the nerve itself.

Uncontrolled glaucoma will initially cause blind spots in the peripheral vision. People tend not to notice these until considerable damage is done. Damage progresses slowly and one eye covers for the other until a majority of optic nerve fibres have been destroyed and vision is noticeably compromised. The damage is irreversible. Treatment cannot recover vision that has already been lost but it can at least slow down the damage process.

Not all glaucoma fits this profile though, and in some cases there is a sudden and complete block of the aqueous outflow. Eye pressure will build up very fast causing acute (angle-closure) glaucoma. Symptoms include blurred vision, severe pain, coloured rings around lights, and even nausea and vomiting. Blindness from this condition can result in as little as 1 or 2 days so it is important that specialist attention is sought without delay.

Risk factors for developing glaucoma include:

- a family history of glaucoma
- myopia
- diabetes
- thyroid disease
- migraine / Raynauds
- eye injury
- arteriosclerosis
- past or present use of cortisone drugs

The best way to protect sight from glaucoma is to test for it and begin treatment immediately it is diagnosed. A glaucoma test usually includes the following:

- optic nerve check with a direct ophthalmoscope (or preferably with indirect ophthalmoscopy).
- eye pressure check (tonometry)
- visual field assessment to check for peripheral field loss.

Many general practitioners will feel confident in testing for glaucoma as part of periodic medical assessment but it is worth considering a referral to your local optometrist for regular eye examinations.

This is particularly important for older patients and those with increased risk. Once glaucoma is diagnosed regular monitoring of the optic disc is crucial to ensure treatment is reviewed in response to any changes.

Treatment may be medical or surgical depending on the nature and progression of the glaucoma.

*“Blindness from acute angle-closure glaucoma can result in as little as 1 or 2 days”*

## Medical and surgical treatments for the glaucomas

Treatments for the glaucomas include:

**Eyedrops** – this is the most common form of treatment. In some cases oral medications may be prescribed.

**Laser trabeculoplasty** – this is used when eye drops do not stop deterioration in vision. Eye drops may still be needed after laser treatment.

**Trabeculectomy** - if eye drops and laser have not been effective then a new channel for the fluid to leave the eye can be surgically created.

***These treatments can save remaining vision but cannot restore sight already lost.***

The glaucomas include:

**Primary Open-Angle Glaucoma** is the most common form of glaucoma. It develops slowly as a result of poor drainage of the aqueous and is sometimes called chronic glaucoma.

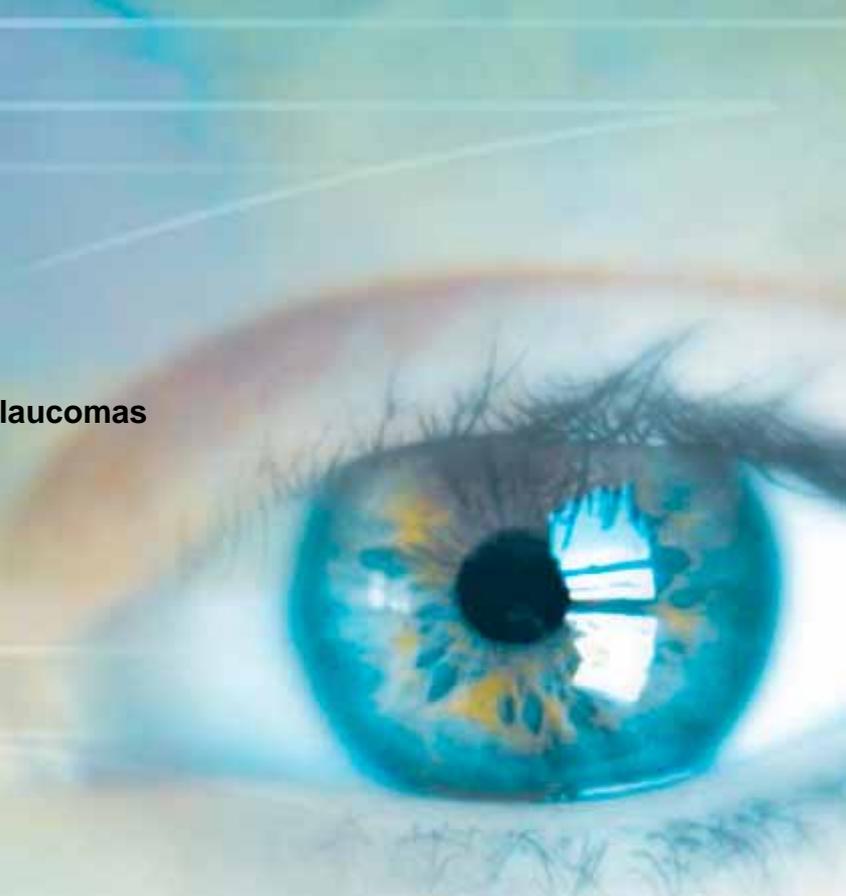
**Normal Tension Glaucoma** develops in some people causing damage to the optic nerve without the characteristic high fluid

pressure in the eye. A key to diagnosing this condition is the appearance of the optic nerve.

**Angle Closure Glaucoma** is caused by the drainage angle becoming closed off.

**Acute Glaucoma** occurs when the drainage angle becomes suddenly and completely blocked. Acute Glaucoma needs immediate treatment to prevent permanent damage to the optic nerve.

**Trauma-related Glaucoma** may result from an accident to the eye causing damage to the angle or drainage system. This can cause acute or chronic glaucoma.



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