

# Glaucoma & Treatment



**Glaucoma is a common sight-threatening condition. Fortunately treatment is an exciting and rapidly progressing field with new options being developed all the time. Please discuss the contents of this information sheet with your surgeon, our staff and your friends and family.**

## What is Glaucoma?

Glaucoma is the name given to a condition which involves the optic nerve fibres dying off too quickly. The condition usually starts slowly and gently accelerates and can, if untreated, eventually cause patchy, permanently faded vision preventing driving and other activities. We can detect it early through detailed eye examinations and tests of your peripheral vision. Usually it is your optometrist who discovers it is developing and refers you to an eye surgeon for assessment and treatment.

We know the eyeball pressure is important and that reducing the intraocular pressure slows or stops glaucoma. Dietary supplements have a small role. Glaucoma is increasingly common with age and often people are unaware of it until it has damaged a lot of the peripheral vision. If you have adult children they should have an eye check for glaucoma too as it can run in families.

## What Are The Treatments?

General measures such as regular exercise and a healthy diet are helpful. If there is a specific cause such as steroid use or inflammation, that must be addressed. To treat glaucoma, we lower the pressure using medications, light treatment or surgery.

## Eye Drops

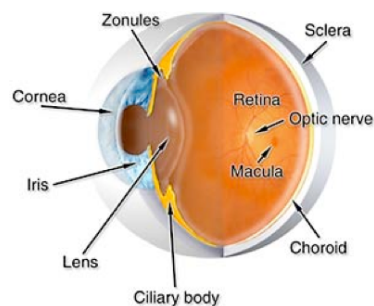
These are usually the first treatment option to try and currently in NZ are eyedrops only. Putting the drops in requires a steady hand and a good aim which takes practice but is quickly mastered. The two main disadvantages of eyedrops are...

..having to remember to put them in and dry eye side effects (redness, variable vision, soreness). Other medication side effects are rare but do require checking your medical history before prescribing. Sometimes eyedrops aren't suitable or sufficient so we need to consider laser treatment or surgery. Implantable drug delivery systems may become available in NZ in future which will overcome some of the eyedrop disadvantages.

## Laser Treatments

Laser treatments can be considered to improve the drainage of fluid from the eye and lower pressure. *Laser Iridotomy* and *Laser Iridoplasty*, which open up the space at the peripheral edge of the iris where the fluid drains, are used if it is narrow ("angle closure glaucoma"), whilst *Selective Laser Trabeculoplasty (SLT)* is used to improve the drainage function of the specialised drainage tissue. Laser treatments are comfortable and quick and usually work well. SLT is sometimes the first-line treatment for glaucoma and may be used in addition to drops, and repeated. We use anaesthetic eyedrops and a special contact lens to apply laser treatment and it usually takes 5 - 10 minutes.

Normal Eye Anatomy



# Glaucoma & Surgery



NELSON  
EYE SURGEONS

## Microincisional Angle-Based Glaucoma Surgery

These procedures are fantastic for some patients and may be combined with cataract surgery. Comfortable, effective and with a rapid recovery they are becoming widely performed by glaucoma surgeons. In particular, we perform iStent implantation, and goniotomy with a Kahook Dual blade instrument (searchable online). These procedures may be more effective if used at an earlier stage to prevent progression to the point where one of the more substantial operations below are required.

## Xen implant surgery

This is a larger “keyhole” surgery; no sutures, faster and causes less vision disturbance postoperatively. The Xen implant is a tiny tube injected through the eye wall to lower the intraocular pressure. However the effect can wear off quickly so is used less often now.

## Trabeculectomy

This is a traditional and reliable operation often combined with the use of anti-scarring agents. It involves raising a small flap of the white of the eye to create a small passage for the intraocular fluid (aqueous) to leave the eye, creating a small blister-like collection on the eye surface, hidden underneath your upper eyelid.

## Tube Drainage Surgery

This sort of operation is used as an alternative to a trabeculectomy. A plate of flexible plastic connected to a thin silicone tube is attached to the white of the eye up under the eyelid; the tube carries the fluid out of the eye. This doesn't give as low a pressure short-term as a trabeculectomy but the vision recovers faster after surgery and generally gives as low a pressure long term although medications may still be needed in addition.

## Glaucoma Surgery – what happens to me?

This sort of surgery requires either a general anaesthetic or local anaesthesia (sometimes with oral sedation), as a day-case operation. Infection, bleeding, and excessive drainage are the main surgical risks. Afterwards the eye is bloodshot for several weeks, might feel gritty because of the little sutures used on the surface of the white of the eye, and the vision may be quite blurry for a few weeks and a little blurry for up to 2 months. The surgery almost always improves the intraocular pressure control but to make the most of the surgery, frequent visits are needed for several weeks to fine-tune the use of postoperative eyedrops, loosen sutures, and to optimise the healing process.

## What happens to most people with glaucoma?

Despite the existence of surgical procedures being sometimes required for a few people, most people with glaucoma are not particularly inconvenienced and carry on life as normal with using regular medications or just occasional laser treatment without anything more serious being required, and enjoy preservation of their vision.

That is the goal of our care as we journey together. Please make sure that you are fully informed as much as possible when making decisions about your eye treatment, we are here to help.

## Further information:

Glaucoma NZ - [www.glaucoma.org.nz](http://www.glaucoma.org.nz)

## Additional Contacts:

Nelson Public Hospital: (03) 546 1800

Buller Hospital: (03) 788 9030