

# Eyelights



The Newsletter of Glaucoma NZ  
Volume 6 | Issue 2 | July 2009

## Inside:

**Glaucoma and  
Pregnancy**

**Laser Trabeculoplasty**

**Bedtime Mantra**

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*Life is our life's work*

Silver Sponsor



Bronze Sponsors



We make it visible.

Supported by



## July Annual

## Awareness Appeal

“Don’t Lose Sight Of The World You Live In”

Family and friends  
A beautiful sunset  
The sparkling ocean  
Driving your car

The month of July is officially Glaucoma New Zealand’s Annual Awareness Appeal – a permanent date in the calendar year.

The purpose of this Appeal is to raise awareness of glaucoma, the importance of early detection, ongoing management and treatment of this disease, as well as much needed funds to enable Glaucoma NZ to continue with its free nationwide education and research programmes.

To mark the launch of the July Annual Awareness Appeal, GNZ has produced a lens cleaning cloth which will be available from supporting optometrists, ophthalmologists and pharmacies around the country for a donation of \$3.00 each (see enclosed list of participants).

We urge you to visit your optometrist for an eye examination and encourage your friends and family to do the same. If you have glaucoma, it’s important to have regular visits with your ophthalmologist and maintain the prescribed treatment regime.

If you are not near an Appeal participant, you can purchase the lens cleaning cloths directly from the GNZ office, phone 0800 452 826, email [info@glaucoma.org.nz](mailto:info@glaucoma.org.nz), or visit [www.glaucoma.org.nz](http://www.glaucoma.org.nz).

It’s a great product to keep handy for your own sunglasses, prescription glasses, or as a gift. Minimum order of 3 for \$10.



Continued over page...

**Don't lose sight of the world  
you live in.**

### **Have an eye examination**

Glaucoma is the leading cause of preventable blindness in New Zealand. If glaucoma is detected early enough, treatment can prevent progression and preserve eyesight.

#### **Who is most at risk?**

**People over 60.** If you're aged 60 or over you are much more likely to have glaucoma than a younger person. However, Glaucoma NZ urges everyone to have an eye examination by the age of 45, every 5 years after that until the age of 60, and three yearly after 60. Glaucoma is a silent disease. There may be no obvious symptoms at first.

#### **People with glaucoma 'in the family'**

You are 10 times more at risk of glaucoma if a blood relative has had it. Ask older family members if they can remember anybody with the condition. If you are the one with glaucoma tell your family and ask them to go to their optometrist for an eye examination.

#### **Shortsighted people**

If you're shortsighted (myopic) you're at a greater-than-normal risk of getting glaucoma.

#### **Other 'at risk' groups**

People with diabetes, hypertension or thyroid disease also have a higher risk of glaucoma.

Appeal Sponsors – Thank you



## **Glaucoma and Daily Life**

*Once you have a diagnosis of glaucoma, it is necessary to make a few changes to your lifestyle in order to manage glaucoma effectively.*

*Here are a few helpful hints:*

1. Make sure you visit your doctor regularly and follow the treatment recommendations. Remember glaucoma is a silent disease, and just because you don't have symptoms doesn't mean irreversible damage is not occurring.
2. Try to schedule taking medications around daily routines which will make taking the drops easier to remember. Some ideas are during mealtime or placing your drops near your toothbrush.
3. Don't neglect the emotional and psychological feelings that occur when you are given a diagnosis of glaucoma. Be sure to share your feelings with your doctor as well as your spouse or family.
4. Don't let glaucoma limit your life. A common mistake is to stop doing the things you love, or lose confidence in yourself once you are given a diagnosis.
5. Recognise some of the challenges that glaucoma may give you. Some daily activities such as driving, or playing certain sports may become more challenging if the glaucoma progresses for mild to moderate levels. Loss of contrast sensitivity, problems with glare and light sensitivity are some of the possible effects of glaucoma that may interfere with your life. Sunglasses or tinted lenses help with glare and contrast.

## For New Readers

**Welcome to everyone who has joined Glaucoma NZ since the last issue of Eyelights!**

Here are some basic facts about glaucoma:

There are different types of glaucoma, but they all involve damage to the optic nerve at the back of the eye.

Glaucoma is not curable. If you have glaucoma you must be monitored for the rest of your life.

Current treatments for glaucoma all aim to lower eye pressure.

Medication in eye drops can have side effects on other parts of your body. Tell your eye specialist.

People of all ages can get glaucoma.

A family history of glaucoma means you are at much greater risk of developing glaucoma.

If you have glaucoma you should tell your relatives, especially close relatives like sisters, brothers and adult children, of their additional risk and advise them to have their eyes examined.

Glaucoma NZ is a registered charitable trust which receives no government funding. It relies solely on donations, sponsorship, grants and fundraising.



## Glaucoma and Pregnancy

Up until recently the management of glaucoma during pregnancy has not been a common issue. However, as more women are starting families' later in life and glaucoma is diagnosed earlier because of better technology, it is now more common for female glaucoma patients to become pregnant. This raises several issues:

1. What happens to eye pressure during pregnancy? Studies of pregnant women with ocular hypertension (that is with high eye pressures but no evidence of damage to the optic nerve) show that eye pressure decreases as pregnancy progresses.
2. Does this mean that glaucoma stabilises during pregnancy? No. In the past it was believed that this slight natural reduction in eye pressure may stabilise glaucoma and reduce the need for treatment. However, studies have shown that once someone has glaucoma it must be monitored closely during pregnancy because there is a chance of deterioration.

Under supervision of your eye doctor, it may be possible to stop the eye drops and be monitored while you are trying to conceive or in the early months of pregnancy.

3. What about the use of eye drops? Most pregnant women are understandably concerned about taking medications that might be harmful to the baby. In general, it is best to avoid medications during pregnancy, but each person's situation is unique, so the decision needs to be discussed with your doctor. One option for women who plan to become pregnant is laser eye surgery known as laser trabeculoplasty. This is a safe, non-medical glaucoma treatment with pressure lowering benefits that may allow for discontinuation of glaucoma drops during pregnancy.



# Laser Trabeculoplasty - Laser treatment for chronic glaucoma

Laser trabeculoplasty is a safe, easy treatment suitable for most patients with glaucoma:

## How is laser trabeculoplasty performed?

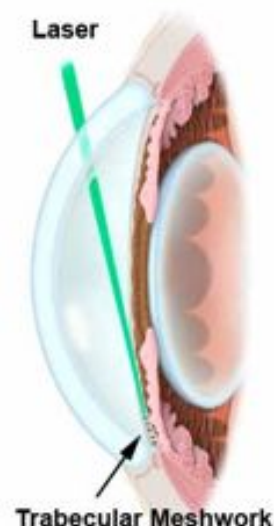
Laser trabeculoplasty is performed at a slit lamp microscope similar to the one used in regular examinations. It takes about 10 minutes and is either pain free or mildly uncomfortable for most patients. After instillation of anaesthetic eyedrops a contact lens is placed against the eye, and 50 to 100 small burns are placed around the drainage angle of the eye. It is quite different from other laser treatments eye surgeons use.

## What are the pluses of laser trabeculoplasty?

- it is very safe
- it is easy to perform
- it can lower eye pressure dramatically and keep it low for many years
- it can mean that eye-drops with their various side-effects can be avoided

## What are the minuses of laser trabeculoplasty?

- it often doesn't lower eye pressure much or at all
- successful treatment doesn't always last a long time



## How does laser trabeculoplasty work?

We do not completely understand this. It may be that the area around the contracted burns opens to allow more fluid flow. It is possible that the laser initiates a series of biological events in the eye with release of local hormones that have the beneficial response that we seek. The treatment was initially intended to create an opening through which aqueous could leave the eye – we know that it doesn't in fact work this way. Nevertheless it is a well established treatment for glaucoma that has been validated by high quality clinical trials, and has been in widespread use for many years around the world.

## What are the risks of laser trabeculoplasty?

A previous risk of the eye pressure transiently rising steeply immediately after treatment is now almost never seen with the use of an adrenergic eye-drop at the time of treatment. Very rarely the treatment may **raise** intra-ocular pressure long term. Whenever we put a contact lens against the eye there is a small risk of scratching the cornea.

## Some Common Life Style Questions

### Does exercise help protect me from glaucoma?



Keeping your weight down and yourself physically fit helps prevent heart attacks and diabetes which is important for your overall well-being. These same measures also help to protect your sight, whether you have glaucoma or not. That's because your blood vessel health is promoted

and therefore your visual health. Exercise to the limits of your comfort and ability – a good goal to reach is at least 3 times a week for 30 minutes.

### Is a particular diet or food choice a problem for those with glaucoma?

No specific foods are particularly good or bad for glaucoma treatment. Because optic nerve health depends in part on healthy blood vessels, food that helps to maintain blood vessel health is likely to promote visual health: reduced saturated fats and increased intake of vegetables and fruit are desirable. Red wine also helps to provide extra antioxidants and the alcohol content tends to reduce eye pressure, albeit temporarily. So, a little red wine almost every day is not a bad idea.

### What about caffeine?

Some studies have shown that significant caffeine intake over a short time can slightly elevate pressure for one to three hours. However, other studies indicate that caffeine has no meaningful impact on pressure. To be safe, people with glaucoma are advised to limit their caffeine intake to moderate levels.

### Is there any truth that taking vitamins assists in glaucoma treatment?

Some of the vitamins and minerals important to the eye include zinc and copper, antioxidant vitamins C, E, and A (as beta carotene), and selenium, an antioxidant mineral. While no disease in humans has been proven to arise as a result of vitamin E deficiency, vitamin E added to regular glaucoma medication improved visual fields in a majority of patients studied.



### I have heard Ginkgo Biloba has some healing properties. Is this correct?

Ginkgo Biloba is a leaf from a Jurassic plant. Ginkgo still has no proven benefit for glaucoma treatment but is the only alternative treatment that is showing any promise for the future. The problem is the side effects, mainly unwanted bleeding, and the cost which can be over \$1000 per year for a standard treatment dose. Further research is continuing worldwide which the Glaucoma NZ trustees are keeping up to date with.

### Is sex safe?

Now that we have your attention (!) from a glaucoma point of view, in a word yes - just don't hang your head down for prolonged periods!

## Readers Story Contributions

If you would like to share your glaucoma story with readers, we would love to hear from you. Please email, post or fax your story to Glaucoma NZ, attention Eyelights Editor.

## Reader's Story

### Life With Glaucoma Since Birth

Jenny Hay is a busy Administration Officer at the Lyttelton Port of Christchurch. She was born with congenital glaucoma 58 years ago, and lost the sight of her left eye as a baby. However, this hasn't stopped Jenny embracing life at every level - even though there were some tough times growing up with glaucoma:

Shortly after I was born, Mum noticed the cornea of my right eye suddenly became quite grey, and to a lesser extent my left eye was also cloudy.

I had my first glaucoma surgery when I was 3 months old, followed shortly after by more surgery where I lost the sight of my left eye.

At a very young age I disliked men in white coats. Hard to believe now, but my hospital stays back then lasted up to 3 days. Childhood with glaucoma meant annual general anaesthesia to test my eye pressure, and to this day I have a bit of a thing about masks over my face. The other method of testing for pressure was a hand-held apparatus that involved the patient lying flat on their back and the specialist bringing the apparatus down to the eyes. That is enough for any child to react quickly and move out of the way!

In 1966 the pressure rose in my right eye and I needed another operation. As a 17 year old teenager I was horrified when they cut off my eyelashes – just to the one eye. And after the surgery I had to lie on my side and not move for 24 hours. I also did a bit of sleep walking – ending up in the men's ward next door.

Eye drops were prescribed after the surgery – all sorts of brands. The early medications were great when I had a cold because they



*One of Jenny's photos taken at Yealands Vineyards, Seddon, Marlborough May 2009*

cleared my sinuses for a good eight hours and I was fascinated with the rainbow of colours in my handkerchief when I blew my nose.

In 1996, and now middle-aged, a corneal graft became necessary as I'd developed odema in my right eye. I'd stopped driving several months before the surgery as the odema made it feel like I was looking through frosted glass. This was a real blow to my independence. Many thoughts go through your mind while waiting for surgery, and of course the biggie is: will it be successful? In the end you just have to go with the flow as the whole thing is too big to contemplate.

After the surgery, with sutures in, my sight was very poor. I still couldn't drive and reading was too much effort. Trips to the supermarket were adventures because I never quite knew what I'd come home with! However, my employer was excellent and didn't mind me working with a magnifying glass. The 15 months with those sutures in felt like an eternity, but the operation was a success and when those sutures finally came out my sight was really good.

I feel very lucky with my past and present eye specialists, and am very thankful the sight in my precious right eye has been preserved. I may have to have cataract surgery in the future, but in the meantime I have a job I enjoy and I want to get on with my love of photography, tramping and travel. I'm really looking forward to a trip to India later this year.

## Bedtime Mantra

There is a mantra that those of us who are in the eye business recite every night before going to bed. It varies from person to person, but as we sit in the lotus position at the foot of our bed we chant: "Glaucoma is the commonest form of preventable blindness in New Zealand.... Ommmm", or words to that effect.

The latest figures from the Royal NZ Foundation of the Blind show that 12% of all annual registrations are due to glaucoma. No other treatable condition comes even close.

Why then are so many people going blind with a condition that is regarded as treatable?

The answer as you might expect, is complex and there are a number of factors involved. The first and probably the biggest factor is that chronic open angle glaucoma (the commonest form) has **no symptoms**. So people do not go rushing into their GP or optometrist with their hand over one eye saying "I think I've got glaucoma".

It is estimated that over half of those people currently with glaucoma are undiagnosed.

The fact is, most glaucoma in NZ is discovered by chance. Some of the more enlightened members of our community know that if they have an immediate relative (parent or sibling) with glaucoma the likelihood of them developing it is increased as much as tenfold. Others may know that you are at greatest risk of developing glaucoma from about the age of 45 upwards with risk increasing with age. Some people are getting a full eye examination every time they go to change their glasses at their optometrists (no examination available with hobby-type glasses). What we also know, or at least the Australians do, is that the average person in the street is most scared of two conditions:



**cancer and blindness.** This survey was only done in Australia, so we will just have to assume that Kiwis are broadly similar in their fears to their mates across the ditch.

The aspect of treatment is a very delicate matter; suffice it to say not all treatments are as successful as we would like, and not every patient is as compliant as we would like. So generally when we refer to treatment we really mean slowing the progression down, to the extent that people will literally 'see' out their three score years and ten. Obviously the sooner it is detected the greater the chances of that occurring.

Why then, I hear you say, is there not a screening programme for glaucoma? The rather odd answer is that population based screening for glaucoma probably does more harm than good. The reason, because there is no single test that will reliably detect it; so people may be given a false reassurance. Measuring intraocular pressure identifies elevated pressure. However, approximately one third of those with glaucoma do not have high pressures. Examination of the optic nerve and measurement of the visual fields is, at this time, the most reliable method of determining whether a person needs treatment. Unfortunately these cannot be set up in a supermarket or a Marae and require expertise to interpret the results.



However, other methods of detection are being researched that will hopefully provide a solution in the near future. The day may soon come when you can sit in front of a screen full of whirling patterns, have a few electrodes connected to your head and be told that you don't have glaucoma with some degree of certainty.

Meanwhile we must continue to be vigilant if our mantra is to be answered. I am not sure whether mantras are meant to be answered; but if we want to reduce the number of people going blind through this condition we must detect it sooner and more reliably. It is the responsibility of all of us to spread the word (this is becoming much more evangelical than I intended).

Spread the word that everybody over 45 should have their eyes examined regularly and if you have the condition yourself ensure that your relatives are informed of the relative risk!!

## Entertainment™ Books

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[www.glaucoma.nz](http://www.glaucoma.nz)



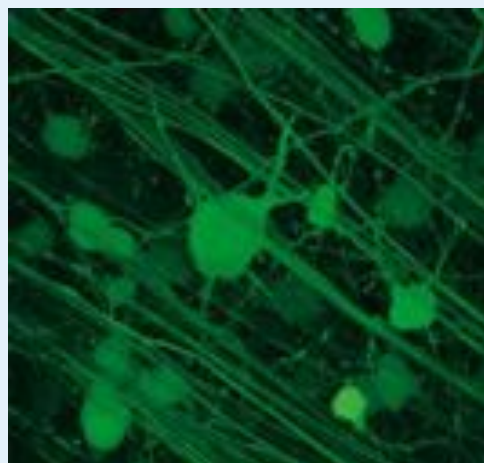
## Research Update

### Optic Nerve Cells More Robust Than Previously Thought

The optic nerve which is the nerve of sight is made up of cells called retinal ganglion cells. It has been known for many years that these cells die in glaucoma and that is why vision is lost. It has recently been discovered that these retinal ganglion cells are alive long after people assumed them gone. It is now thought that the retinal ganglion cells lose function before they die. For example, they lose the ability to carry transported material to and from the brain long before they disappear. This means there is a unique window of opportunity to boost their function before it is too late.

In animal models it has been shown that antioxidants may help promote cell survival in the retina. Although these results have yet to be translated to humans, it is a promising new direction of research. It has been recognised that oxidative damage occurs early in the disease, causing slow changes in retinal ganglion cells making them smaller and less functional.

These changes make the cells susceptible to stressors that are normally well tolerated by healthy ganglion cells. The good news is that researchers are learning a great deal about the cells and molecular of the retina and this will help develop strategies to make the cells more robust.



*Retinal ganglion cells*

## Public Mail Box



### Is there anything known about the effect of Avastin injections on glaucoma?

There is a special type of glaucoma for which the intravitreal injections of VEGF inhibitors (AVASTIN and LUCENTIS) can be curative.

This type of glaucoma is called neovascular glaucoma or rubeosis iridis. Neovascular glaucoma only happens in the very sick eyes of people with advanced diabetes or retinal vein occlusions. The VEGF inhibitors have opened a new and effective treatment option in this small group of glaucoma patients.

More often the question arises when someone has both glaucoma and macular degeneration. After an injection of Lucentis or Avastin the IOP will rise. The pressure can be expected to rise to over 40mmHg but the elevation will be short-lived. Most folk will have pressures below 30mmHg within 15 minutes of the injection. Given that the vision damage that happens with glaucoma is caused by sustained high pressure over many years a short period of high pressure is unlikely to do any harm. However in someone with very advanced glaucoma the surgeon may opt to reduce the size of the pressure spike, either medically with drops or tablets(diamox) or surgically by draining a small amount of eye fluid off immediately after the intravitreal injection.

## New staff member joins the Glaucoma NZ Team

Glaucoma NZ's newest member of the team, Ginny Harwood, has wide experience within the Public Health sector as well as education and health promotion within the charity environment. Ginny is a Registered Nurse and is keen to use her skills in raising awareness about glaucoma with the general public, the medical profession and in workplace environments. "There has been much good work accomplished in GNZ already and I am excited to be involved in expanding on this for the future" says Ginny.



You will get an opportunity to meet Ginny as she travels about the country at the various GNZ public meetings.

*Pictured from the left  
Karon Farmer (Administration Assistant),  
Helen Mawn (Executive Manager), Ginny  
Harwood (Education & Promotions Executive)*

## Out & About

### Fashion Fundraiser with a message



On Wednesday 22nd April, Visique Shattky on Russell in Hastings was abuzz with the excitement of the Kate Sylvester fashion evening and a charity auction for Glaucoma NZ.

Models strutted the catwalk wearing Kate Sylvester's

new season range of clothes, spectacle frames and sunglasses, followed by a charity auction which raised nearly \$2,000 for Glaucoma NZ.

The announcement of another Free Glaucoma Screening Day on 18th July was a welcome message. Shattky's Free Glaucoma Screening Day in January saw 200 people take advantage of this important community initiative.

From GNZ – a big thank you to the team at Visique Shattky for your all your hard work and support!

**Please send feedback and suggestions for Eyelights to the Editor.**

**Questions for the Public Mailbox are welcomed.**

### Moving House?

Don't forget to advise Glaucoma NZ of your new address.

## Public Meetings

Already for 2009 Glaucoma NZ has held four public seminars in Tauranga, Hamilton, Nelson and Dunedin.

Upcoming seminars:

### 18th July – Auckland Central – 10am

Alexandra Park Function Centre, Rutherford Room, Greenlane Rd West, Greenlane

### 25th July – Auckland North Shore – 10am

Fairway Lodge, Argus Place, Glenfield

### 8th August – Wellington – 10am

Conference Room, Southward Car Museum, Otaihanga Rd, Paraparaumu

### 22nd August – Auckland East – 10am

Howick Library Complex, Fencible Lounge, 25 Uxbridge Rd, Howick

### 5th September – Christchurch – 10am

The Aurora Centre, Burnside High School, Greers Rd, Christchurch

These seminars are available to any member of the public who wishes to know more about glaucoma – so invite family and friends to attend.

For details of further meetings around the country keep an eye on our website [www.glaucoma.org.nz](http://www.glaucoma.org.nz)

Glaucoma NZ members will receive personal invitations.

## July Annual Awareness Appeal

**PLEASE** support us in our mission to eliminate blindness from glaucoma in New Zealand. Approximately 68,000 New Zealanders over the age of 40 currently have glaucoma, and half of those don't actually know they have it. With your help we can reduce these statistics by continuing to provide our nationwide initiatives:

Public Seminars, Educational Resources, 0800 Advisory Service, Eyelights Publication, Health Professionals Education Programme, Advocacy, Research

We have reached thousands of New Zealanders with our programmes but there is still much to be done to achieve our goal of eliminating blindness from glaucoma.

We cannot do it alone – we continue to need your help.

### THANK YOU.



**YES!** I would like to make a donation.

\$100    \$50    \$30    \$20    \$\_\_\_\_\_ (other)

Name \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_ Postcode \_\_\_\_\_

Phone No \_\_\_\_\_ Email \_\_\_\_\_

I enclose my cheque made payable to Glaucoma NZ

Please debit my credit card    Visa    Mastercard

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