

Eyelights



The Newsletter of Glaucoma NZ
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Inside:

Eye on Research

Acute Glaucoma

July Awareness Month

Gift of Sight

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Ocular Coherence Tomography

Ocular Coherence Tomography (OCT) is an imaging test that allows for detailed visualisation of the optic nerve head and retina. The damage glaucoma causes to the optic nerve can be detected in two general ways: either with the way the nerve is working (i.e. problems with vision) or abnormal changes in the structure of the nerve.

In general problems with the appearance of the optic nerve can be seen long before people have any trouble with their vision. Detecting problems with the structure of the optic nerve is therefore very important as an early sign of glaucoma as well as a sign that glaucoma may be getting worse.

Many people will be familiar with the vision tests used to monitor glaucoma, and just as there are a number of different vision tests that can be used, there are a number of different ways of recording the appearance of the optic nerve. For most of last century the state of the art was a pen and paper drawing of what the ophthalmologist saw on the day. This method had obvious limitations; primarily related to the artistic expertise and accuracy of one's ophthalmologist (definitely a mixed bag). With the advent of high quality eye cameras it became possible to record the optic nerve in life like detail and optic nerve photos remain a very useful way of imaging in glaucoma. By comparing new and old photographs it is possible to see changes in the nerve, although it can be difficult to get exact measurements of the



Continued over page

change. OCT gives a new way of recording and measuring the structure of the optic nerve in great detail.

The OCT machine is similar to ultrasound but rather than using sound waves to create an image it uses light. Another analogy which can help us understand OCT is that it is similar to a sophisticated camera taking pictures with special lasers which scan the inside of the eye and then analyse the reflections of those laser beams as they come back to the camera sensor. The OCT takes thousands of scans each second and combines these individual scans together to give the detailed picture that we see.

That picture can tell a great deal about the optic nerve. Each section of the nerve can be measured and compared to the general population to see if there is anything obviously abnormal. The OCT provides measurements of the optic nerve shape and thickness in microns - much more detailed and objective than the human eye. In many cases this can help make the diagnosis of glaucoma more easily at the first appointment. **The real strength of OCT however is in its ability to detect changes over time.** When the OCT is repeated after a period of time the new scans can be compared to the old ones, allowing detection of changes which may be too subtle to have been noticed with older technologies, such as colour photos or drawings.

OCT machines have been used for several years to help with the management of many eye conditions including glaucoma and their use is becoming more and more commonplace.

Having an OCT picture taken is very similar to having a normal picture taken of your eye. It is not generally required to touch the eye but people may need to have eye drops put in to dilate the pupil in order to get the best pictures. The scan itself takes only a few seconds.

There are some conditions, such as cataract, which can affect the quality of the pictures that the OCT takes and there are some eyes which are just harder to get satisfactory pictures for other reasons.

That being said for the vast majority the OCT will take high quality pictures which can help in the diagnosis and monitoring of glaucoma.

It should be noted that while many ophthalmologists find OCT useful it is not a replacement for a careful examination of the eye and it is also true that many people with glaucoma will receive excellent care without ever having an OCT scan.

It is simply another test in the evolving landscape of glaucoma management and must be interpreted in the context of the whole clinical picture.

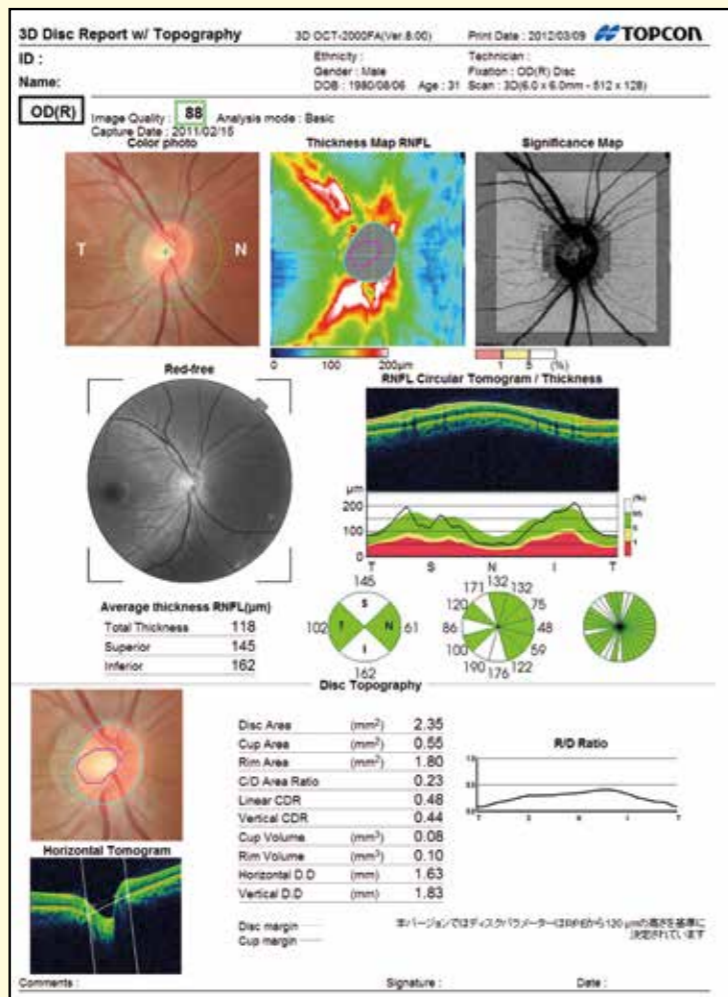


Figure 2: Report Chart



Eye on Research

New genes identified

The recent national conference for ophthalmologists and ophthalmic nurses held in Auckland was notable for a number of reasons. Among them was the contribution of Professor Jamie Craig from Adelaide who is a leading glaucoma researcher and physician. Professor Craig gave updates on the genetics of glaucoma and in particular on the subset of glaucoma which is associated with a condition called Pseudoexfoliation Syndrome. This condition is little known outside of ophthalmology circles but is one of the more commonly identified causes of glaucoma in our population.

In Pseudoexfoliation Syndrome we see fine dust-like particles accumulating on the surface of structures inside the eye. It is thought that this fine dust may be clogging up the drainage pathways in the eye which then causes the pressure inside the eye to rise. The make-up and origin of this dust was a mystery until comparatively recently. In recent years some of the components of this material have been worked out and also a number of genes have been identified. Professor Craig's group have been involved in this work and it is hoped that with a greater understanding of the mechanisms causing this problem that more and better treatments will be developed.

One of the most important tools for the investigation of the genes which cause glaucoma is Professor Craig's Australia and New Zealand register of people who have advanced glaucoma. He is hopeful that by testing these people with a simple mouth swab DNA test we will be able to learn more about the disease and make big advances in glaucoma care. It is hoped that over the next

few years more New Zealanders will have this simple test via their doctors and in doing so help with glaucoma research.

Did you know that snoring could make you blind?

That sounds a bit melodramatic and conjures up images of an enraged sleep-deprived partner intending to whack you over the head, missing and causing permanent eye damage. Although that is a possible outcome, it's not quite the whole story.

In a recent edition of Clinical and Experimental Ophthalmology a group of research workers in Atlanta, Georgia have found "a strong association between glaucoma and Obstructive Sleep Apnoea". This correlation has been suggested and even made before, but this research is the most recent and the most convincing. I'm sure most of you are familiar with the risk factors for glaucoma, things like age and family history, but they are not what are called in the business: modifiable, whereas sleep apnoea is. There are well-established treatments for this unfortunate and anti-social condition. Seeking treatment for it, as well as possibly helping with the management of your glaucoma may have other beneficial health effects, such as preventing premature death; not just from the cardio-vascular complications, but possibly at the hands of your enraged partner!

If you suspect that you snore and you may already know that, you may be suffering from obstructive sleep apnoea. So for the sake of you and your partner's sleep-deprivation, and the fact that it may be a contributing factor to your glaucoma - even if you are not sure, it would definitely be worth mentioning the next time you go for an eye check up.

Acute Glaucoma

Unlike Primary Open-Angle Glaucoma (POAG), where the intraocular pressure (IOP) increases slowly, in acute angle-closure it increases suddenly. This sudden rise in pressure can occur within a matter of hours and become very painful. If the pressure rises high enough, the pain may become so intense that it can cause nausea and vomiting.

The eye becomes red, the cornea swells and clouds, and the patient may see haloes around lights and experience blurred vision.



An acute attack is an emergency condition. If treatment is delayed, eyesight can be permanently destroyed. Scarring of the trabecular meshwork may occur and result in chronic glaucoma, which is much more difficult to control. Cataracts may also develop. Damage to the optic nerve may occur quickly and cause permanently impaired vision.

Many of these sudden attacks occur in darkened rooms, such as movie theatres. Darkened environments cause the pupil to dilate, or increase in size. When this happens, there is maximum contact between the eye's lens and the iris. This further narrows the angle and may trigger an attack. But the pupil also dilates when one is excited or anxious. Consequently, many acute glaucoma attacks occur during periods of stress. A variety of drugs can also cause dilation of the pupil and lead to an attack of glaucoma. These include anti-depressants, cold medications, antihistamines, and some medications to treat nausea.

Acute glaucoma attacks are not always full blown. Sometimes a patient may have a series of minor attacks. A slight blurring of vision and haloes (rainbow-coloured rings around lights) may be experienced, but without pain or redness. These attacks may end when the patient enters a well lit room or goes to sleep - two situations which naturally cause the pupil to constrict, thereby allowing the iris to pull away from the drain.

An acute attack may be stopped with a combination of drops which constrict the pupil, and drugs that help reduce the eye's fluid production. As soon as the IOP has dropped to a safe level, your ophthalmologist will perform a laser iridotomy, an outpatient procedure in which a laser beam is used to make a small opening in the iris. This allows the fluid to flow more freely. Drops will be used to anaesthetise your eye and there is no pain involved. The entire procedure should take less than thirty minutes. Laser surgery may be performed prophylactically on the other eye, as well. Since it is common for both eyes to suffer from narrowed angles, operating on the unaffected eye is done as a preventive measure.

Routine examinations using a technique called gonioscopy can predict one's chances of having an acute attack. A special lens which contains a mirror is placed lightly on the front of the eye and the width of the angle examined visually. Patients with narrow angles can be warned of early symptoms, so that they can seek immediate treatment. In some cases, laser treatment is recommended as a preventive measure.

Not all angle-closure glaucoma sufferers will experience an acute attack. Instead, some may develop what is called chronic angle-closure glaucoma. In this case, the iris gradually closes over the drain, causing no overt symptoms. When this occurs, scars slowly form between the iris and the drain and the IOP will not rise until there is a significant amount of scar tissue formed - enough to cover the drainage area. If the patient is treated with medication, such as pilocarpine, an acute attack may be prevented, but the chronic form of the disease may still develop.

Glaucoma and Air Travel



Air travel rarely has any effect on intraocular pressure (IOP). Because the air pressure within the cabin is carefully regulated as the plane ascends and descends, there is little change in eye pressure.

However air travel does affect the volume of gases in the air. This may be of relevance to those who have recently had retinal surgery. At the time of surgery, a gas bubble is placed in the eye to help keep the retina in place. The bubble is usually present for 6-8 weeks. Changes in altitude may cause the gas bubble to expand and cause increased IOP. So those people who have had a gas bubble inserted during retinal surgery are usually advised to avoid air travel for the following couple of months.

In contrast, gas bubbles are not used for glaucoma surgery, so people with glaucoma usually do not have air travel restrictions after surgery. However, it is always best to consult with your eye doctor before travelling, especially after any kind of eye surgery.

Because air in the cabin can become dry, artificial tears may be helpful for use when flying, especially on a long flight. Carry your glaucoma medication onboard with you. This will prevent any missed doses associated with delays, lengthy flights, or lost luggage. Also, make sure the bottle caps are tightly sealed to prevent leakage.

Out and About

Glaucoma NZ Research Grant Update

The Dunedin School of Medicine Annual Health Excellence Research Awards took place in May. A number of very prominent researchers received one of these awards for their work over the past year. One of the highlights of the evening was the award for the best summer scholarship project which this year was won by fifth year Dunedin student Josh Erceg.

A number of you will remember Josh's name since he was not only sponsored by Glaucoma New Zealand, but he also contacted 600 GNZ members as part of his study. The prize he won was called the "Gil Barbezat Summer Studentship Prize" and is awarded annually to the best student project as determined by a panel of judges. This award was further distinguished by the fact that the judges were unanimous that Josh's project was the best. When he presented the prize to Josh Erceg, Emeritus Professor Gil Barbezat acknowledged not only the quality of Josh's work, but also the relevance to



Tui Bevan (senior research fellow DSM), Emeritus Prof. Gil Barbezat, Josh Erceg, Assoc. Prof. Gordon Sanderson, Logan Mitchell (senior lecturer ophthalmology DSM).

society and to people with glaucoma. He was extremely complimentary of Josh for the quality of his authorship and also for the extraordinary response rate that Josh had obtained with his questionnaire. Over 83% of those asked responded with their completed questionnaire. Most researchers would be delighted with a response rate of 50%, to get over 80% is almost unheard of in this type of research. So congratulations Josh, and a big thank to GNZ members for their outstanding participation.

An abbreviated report of Josh's study was published in the April edition of Eyelights.

July is Glaucoma Awareness Month

Keep your eye on the ball

Former international cricketer Sir Richard Hadlee spent two decades of his life keeping an eye on the ball.

Now in his 60s he is more focused on keeping an eye on himself, and is leading this year's Glaucoma Awareness Appeal to encourage New Zealanders to get their eyes tested.

"When you're young your body reacts quickly, but as you get older there is more potential for problems to occur... no-one is excused.



Sir Richard Hadlee with optometrist Michael Brown, at Rangiora Eyecare.

"And good eyesight is so important whether you're facing a cricket ball or driving a car," Sir Richard says.

In the 70s and 80s, Sir Richard represented New Zealand in 86 test matches and 115 one-day internationals, facing cricket balls at 150kph and delivering them at up to 140kph.

To put that in perspective, it gives the batsman 0.4 of a second to react and play a shot at the ball.

"It was fast enough to test the batsmen," Sir Richard says.

But today, he says there's no way he could combat that kind of delivery preferring instead to chase a much smaller white ball around the golf course.

A right arm pace bowler and left-handed middle order batsman, Sir Richard was one of the greatest all-rounders in the history of cricket, capturing 431 test wickets and scoring more than 3000 test runs.

Within a year of ending his cricketing career he had open-heart surgery, and more recently a hip and knee replacement.

"It's all indicative of wear and tear and the body slowing down, and that is the reason I

want to get the message out to keep an eye on your health, especially your eyes."

Both Sir Richard and his wife Lady Dianne recently had a glaucoma eye examination, which they describe as quick, easy and a painless way to detect any signs of glaucoma. - "Keep your eye on the ball!"

Glaucoma is the "silent thief of sight". Most people experience no symptoms until late in the disease – damage occurs slowly and progressively, getting worse over a long period of time.

While it is estimated 68,000 New Zealanders over the age of 40 currently have glaucoma, by the year 2031 it is anticipated this will grow to 76,000. This is now a significant health issue.

What concerns health professionals is that with early detection, blindness from glaucoma is preventable. A glaucoma eye examination can pick up the disease very

early and appropriate treatment can halt its progression and preserve sight.

Yet, it is estimated around 50% of New Zealanders with the disease, don't know they have it. With the population ageing, and people living longer, more New Zealanders face the possibility of developing glaucoma.

Research shows one of the things people fear most in life is going blind. It is right up there with cancer and heart disease, probably due to the devastating effect blindness can have on quality of life.

Studies have shown sight loss is likely to lead to depression, as well as accidents in the home, sometimes resulting in hospitalisation.

Then there are the day-to-day changes like the loss of a driver's license, or the ability to read, watch movies, or see grandchildren grow up.



Sir Richard and Lady Dianne Hadlee.

Early detection is the first step to saving your precious sight. Glaucoma can't be cured. Once vision is gone, you can't get it back. However modern treatments like eye drops can halt its progression and preserve the sight that is left. **The next step is to comply with the treatment given.**

The July Awareness Appeal is an opportunity to highlight the risks associated with glaucoma, the importance of early detection, ongoing management and treatment of this disease, as well as to raise much needed funds to enable Glaucoma NZ to continue with its free nationwide education and research initiatives.

Throughout July be on the look-out for our donation boxes containing GNZ pens for a donation at all ASB branches and participating optometrists, ophthalmologists and pharmacies around the country.

Many of the participating optometrists and ophthalmologist have also chosen to donate \$1.00 from each glaucoma eye assessment or eye examination made during the month. Support has also come in the form of donations directly to GNZ in lieu of taking a donation box.

APPEAL SPONSORS, THANK YOU



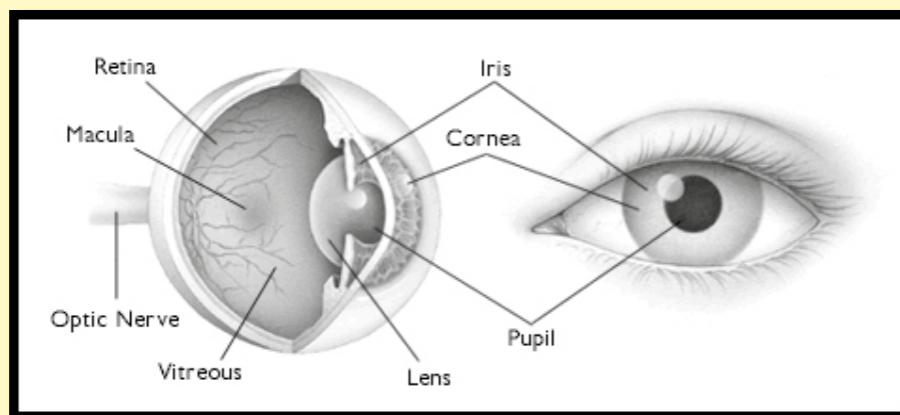
Glaucoma NZ's key message for all New Zealanders is that early detection of glaucoma is vital when it comes to preventing blindness.

That means an eye examination for glaucoma every five years from the age of 45 and every three years from the age of 60. However, at any age, if you notice changes in your eyesight, then you should have your eyes examined at that time. For example, if you require hobby glasses, it is a good idea to have your eyes checked by an eye health professional, just in case there is an underlying problem. In addition if you have risk factors for glaucoma, such as family history, then you may need your eyes checked more frequently.

It is really important for people to know if glaucoma runs their family, because if it does, your risk increases substantially. You are also at higher risk of getting glaucoma if you are 60 years and over, are short sighted, have a past or present use of steroid drugs, or previous eye injury.

Could you 'Give the Gift of Sight'?

You may be surprised to know you could still be a donor of eye tissue even with a condition such as glaucoma!



Can a person with eye problems become an eye donor?

Most people automatically assume their eyes would be unsuitable if they have an eye or sight disorder. This is not true in most cases. Because the cornea and sclera are the only parts of the eye that can be used for transplant, a person would have to have a disorder that specifically affects these to be excluded. People who wear glasses or contact lenses for short or long-sightedness can be donors, as well as people with disorders of other parts of the eye. This includes people with cataract (cloudy lens), retinopathy due to diabetes, glaucoma and many other disorders.

How is suitability to be a donor determined?

A person's medical condition and history must be closely considered at the time of death. This is to ensure that they do not have any infection or other disorder which may affect the safety of the tissue when transplanted into a recipient. Criteria for suitability are slightly different for different tissues, but generally infectious diseases such as HIV, hepatitis and neurological disorders are exclusions. However, many more people can be considered for eye donation, as the eye is mostly external, and the cornea doesn't have a blood supply, making it unlikely that infections will be contained in the tissue. Eye donors can be aged from 10 – 85 years of age

What is the difference between organ and tissue donation?

Many people know of the wonders of modern

transplant surgery, and that organs such as heart, lungs and kidneys can be donated to save lives. However, donors of these organs are medically rare as they must be in an Intensive Care Unit in a state of irreversible brain death. However, many more people can become donors of tissues when 'circulatory' death occurs, which is much more usual. Tissues that can be donated include eye tissue (corneas and sclera), skin, heart valves and bone.

What is the cornea, and why is it needed for transplant?

The cornea is the clear, dome-shaped 'window' on the front of the eye. Its function is to provide a transparent protective barrier, and focus light in the correct way through the lens onto the retina. The cornea must remain very clear and of correct shape for good vision. People who develop disorders where the cornea becomes cloudy, scarred, infected or altered in shape can have severe vision problems, eventually requiring a corneal transplant. The cornea looks simple but it is a complex tissue, and must remain viable for transplant – the good condition of the inner cell layer (endothelium) must be assessed with a microscope to ensure it is healthy.

What about glaucoma, will this affect the cornea?

It depends, but in modern times, this is unlikely. For most forms of glaucoma, the cornea is unlikely to be seriously affected. For some very severe forms, such as where there is greatly increased pressure in the eye, it may cause problems with corneal function. But this

will be unknown until the cornea is assessed microscopically after the donation. Likewise, modern forms of glaucoma treatment or surgery are generally unlikely to affect the cornea. Therefore, it cannot be assumed that glaucoma will mean a poor outcome.

What should I do if I wish to become a donor?

You should register as a donor on your Driver's Licence, which is the only form of official registration of your intent. However, you should also discuss your wishes with your family, as they will be asked to give their consent at the time of your death. It is important your family feels comfortable with honouring your decision. Donation does not proceed without the family's agreement.

A person cannot really decide themselves what may be suitable to donate, as this depends on many factors. But if being a donor is something you feel you would want, please consider registering and letting your family and health care providers know of your wishes. A Will is not appropriate for this, since by the time a Will is read, it is too late for the donation, which must happen soon after death.

In particular, people who have experienced eye problems, such as glaucoma, may especially wish to help others who require eye tissue transplants. This is certainly an option, so don't assume you are not 'healthy' enough!

For further information about becoming an eye donor, please contact the:

New Zealand National Eye Bank
Phone: 0800 373 7537
Email: eyebank@auckland.ac.nz
www.eyebank@auckland.ac.nz

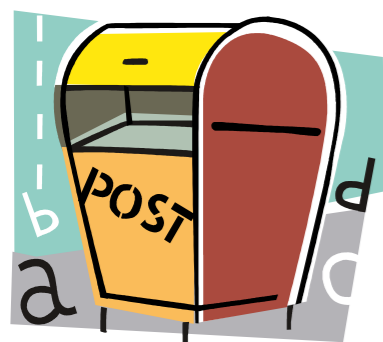
The New Zealand National Eye Bank (NZNEB) is a charitable trust responsible for the supply of donated corneas and other tissues required for transplantation within New Zealand. It is an independent unit located within the Department of Ophthalmology at the University of Auckland. The NZNEB

staff provide a 24 hour, 365 day service to coordinate eye donations from hospitals and the community. This involves screening of potential donors, discussing donation with families and obtaining consent, processing, storage and evaluation of tissue before distribution for transplantation.

Suggested ways you could help Glaucoma NZ help you:

- Continue with your most welcome and appreciated donations.
- Arrange a community fundraising event in your area.
- Contact us to arrange for a glaucoma educator to speak at your club/organisation or workplace.
- Purchase an Entertainment Book.
- Suggest to your work colleagues that they hold a special day or event to support our charity.
- Support our July Annual Awareness Appeal.
- Think of us when preparing or updating your Will.
- Tell everyone about Glaucoma NZ and its services.

P.S. If you are looking at holding a fundraiser, please don't hesitate to contact us to discuss ideas and promotional material we have to enhance your event.



Public Mail Box

Is there a relationship between high eye pressure and high blood pressure?

Blood pressure and eye pressure are independent of one another. Controlling blood pressure does not mean elevated intraocular pressure (IOP) is controlled. While high blood pressure can be associated with elevated IOP, low blood pressure is strongly associated with some types of glaucoma e.g. normal-tension glaucoma, a type of glaucoma that occurs even though the pressure inside the eye is not elevated. Patients with any progressive glaucoma need to make sure their blood pressure is not dropping to very low levels while they sleep.

Is there anything I can do or take to prevent my eyes from feeling sore and gritty in the aeroplane?

Dry eyes are a common complaint of air travellers due to the low humidity of aircraft cabins. The cornea is the transparent front window of the eye and is the part of the eye that sparkles. The transparency of the cornea is maintained by keeping the front surface of the cornea moist. Each time your eye blinks the cornea is recoated with a thin film of tears. Because the cornea is transparent it must take its oxygen straight from the atmosphere avoiding the need for blood vessels.

The air on board passenger aircraft is very dry and this is compounded for those with glaucoma due to the astringency of the glaucoma eye drops. The use of a preservative-free artificial tear drop of any brand and a preservative-free eye gel is recommended. The gel is ideal for times of

resting when the slight blurriness caused by the gel is tolerable. The gel preparations keep the cornea moist for longer than the drops. The eye drops will be better in situations when you are undertaking demanding visual tasks such as reading and don't want the eyes to be blurred. This is good advice for all air travellers who suffer dry eyes not just those with glaucoma.

Please send feedback and suggestions for Eyelights to the Editor. Questions for the Public Mailbox are welcomed.



Glitzy Glasses for Glaucoma New initiative for July

As part of Glaucoma NZ's July Awareness Month, the inaugural Glitzy Glasses Campaign is set to be a whole lot of fun with eyes all over New Zealand preparing to take on some extreme new looks.

Glitzy Glasses for Glaucoma is Friday 26th of July – a day to bedazzled with glitzy, fun glasses in your workplace.

If you would like to get involved in this entertaining new event, check out www.onlineregistration.co.nz/glaucoma/

Public Meetings

Glaucoma NZ's free Public Meeting Programme is well underway with meetings held already in East Auckland, Whakatane, Queenstown, Blenheim, Takapuna and Thames.

These meetings are extremely popular and informative so plan to attend when there is one in your area.

Upcoming Meetings:

20th July – Auckland – 10am

Rutherford Room, Alexandra Park
Green Lane West, Epsom, Auckland

14th August – Pukekohe – 6.15pm

Optik Eyecare Pukekohe, 20 Hall Street

24th August – Kapiti Coast – 10am

Southward Car Museum, Otaihanga Road
Paraparaumu

19th September – Kerikeri – 6.30pm

St John's Training Rooms
357 Kerikeri Road, Kerikeri

28th September – Dunedin – 10am

Mercure Hotel, Chancellor Room
Dunedin

19th October – Tauranga – 10am

Hotel Armitage, The Washington Room
9 Willow Street, Tauranga

Other meetings are planned for
Snells Beach and New Plymouth

Visit www.glaucoma.org.nz to keep up to date with our Public Meeting Programme.

Moving House?

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

For New Readers

To those of you who have joined Glaucoma NZ since the last issue of Eyelights, we welcome you!

For your information here are some basic facts about glaucoma:

People of all ages can get glaucoma.

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

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

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

Current treatments for glaucoma aim to lower eye pressure.

Medication in eye drops can have side effects on other parts of your body. Tell your eye specialist if you notice any change in your general well-being since you started the eye drops.

If you have glaucoma tell your relatives, especially those close relatives like sisters, brothers and adult children. They have an increased risk of developing glaucoma so advise them to have an eye examination.

Glaucoma NZ is a registered charitable trust which receives no government funding. We rely solely on donations, sponsorship, grants and fundraising. All the information available to you from Glaucoma NZ is free.



July Annual Awareness Appeal

WE NEED YOUR HELP. Please support us in our mission to eliminate unnecessary blindness from glaucoma in New Zealand. An estimated 68,000 New Zealanders over the age of 40 currently have glaucoma. 50% of these people don't know they have it.

We have reached thousands of New Zealanders with our programmes but there is still much more to be done:

Public Meetings	Workplace/Community Seminars
Educational Resources	0800 Advisory Service
Eyelight Publication	Health Professionals Education Programme
Research	Advocacy

It is vital that we continue to maintain and extend our nationwide initiatives but we can't do it without your help.

Your support is important to us. Please help us invest in a future without blindness from glaucoma.

 **THANK YOU** for your generosity - every donation counts!

YES! I would like to make a donation to the July Annual Appeal.

\$200 \$100 \$50 \$20 \$_____ (other)

Name _____

Address _____

_____ Postcode _____

Phone No _____ Email _____

I enclose my cheque made payable to Glaucoma NZ

Please debit my credit card Visa Mastercard

Name on Card _____

Card No _____ / _____ / _____ / _____

Expiry Date ____ / ____ Signature _____

Donations of \$5.00 or more are tax deductible and will be receipted.

YES! I would like to receive more information about:

Donating on a regular basis by Automatic Payment

Leaving a bequest in my Will to Glaucoma NZ

I have already included Glaucoma NZ in my Will

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Associate Professor Gordon Sanderson
(Deputy Chairperson)

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Auditors Crowe Horwath

Contact Details

Glaucoma New Zealand
Department of Ophthalmology
The University of Auckland
Private Bag 92019,
Auckland 1142, New Zealand

Telephone: 09 373 8779
0800 GLAUCOMA
0800 452 826

Facsimile: 09 373 7947

Email: info@glaucoma.org.nz

www.glaucoma.org.nz

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