As winter rolls in, we turn our thoughts to cosy indoor activities like reading, movies, theatre and spectator sports, or a shopping trip to a bright and glittery shopping mall.

We usually think of the effect of glaucoma as being a reduction in peripheral vision, which leads us to believe that as long as the condition is being well managed medically and the visual field remains relatively unchanged, we continue to function visually as we have always done and assume that reading and other tasks that require detailed central vision will remain unaffected.

The reality is that there are subtle changes that take place beyond the normal aging process which are common to all optic nerve conditions including glaucoma, as well as other neurological conditions. These changes may include reduced contrast sensitivity, increased glare sensitivity and reduced dark adaptation.

**CONTRAST** is how we detect print or objects standing out from their background. It is the difference in the intensity of print and the intensity of the colour of the background it is printed over. Maximum or “high” contrast is black letters on a white non-shiny background or white letters on a black background, which is often more comfortable for people who are sensitive to glare. The effect of reduced contrast sensitivity is that the world takes on a washed out look which is often described as blur. If there are other conditions such as cataract stopping the light from getting a clear path to the retina at the back of the eye, this will add to the loss of contrast.

To enhance contrast, we can add more light by placing a lamp close to a task so that the light is directed onto the area to be seen. We can also use contrasting colours to highlight details e.g. using a contrasting strip of paint or tape to highlight the edge of a step will make it easier to see and therefore safer. Many people are finding electronic magnifiers which convert low contrast or coloured print to high contrast to be very helpful. Internally lit computers, telephones or e-readers also give enhanced contrast, which is welcomed by people affected by glaucoma.

**GLARE SENSITIVITY** is that horrible discomfort some people get when there is too much light coming into the eyes from the wrong angle, particularly reflected light from shiny surfaces, water, concrete, or low clouds on a wintery day.
We need light to help us to see, but people with glaucoma are often extra sensitive to glare, preferring to turn off lights and pull down the blinds for extra comfort or wearing dark sunglasses which not only cut out glare but also the light that is required to see with.

The answer is to have control of the light using for example polarised lenses with lighter tints which can often also enhance the contrast, to cut out the glare without reducing the light getting through as much as a dark lens will. Use directional lamps, torches or internally lit magnifiers and cover shiny surfaces to reduce glare.

**DARK ADAPTATION** is the ability to see in the dark. Glaucoma affects the peripheral retina which is also the part of the retina that we switch on and use when it gets dark. This means the vision is worse in the dark and it takes longer than normal to adjust from a brightly lit room to a dark hallway or movie theatre. Carrying a small torch or using the light from a mobile phone can be very helpful to light a step, a keyhole, or a dark cupboard.

Most of these subtle changes will not be measured by the vision on the distance chart at the doctor’s room or the tests of peripheral vision that glaucoma sufferers are so familiar with, but an awareness of these changes and the strategies and aids available to counteract these problems can increase safety and reduce frustration. Getting enough light, particularly sunlight can significantly improve the feeling of well-being particularly in winter.

Certainly, just magnifying print is not the answer and sometimes magnification can make things harder to see for a person with significantly reduced peripheral vision.

It is not all about size!

**Naomi Meltzer**  
Low Vision Consultant Optometrist  
(09) 5205208 or 0800 555 546  
info@lowvisionservices.nz  
www.lowvisionservices.nz

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**Support Groups**

We have received feedback that the groups have provided “a place to ask questions in a non-judgemental environment” and “I learn more about glaucoma and get to hear from others who are experiencing the same challenges of living with this eye disease”. For any queries please contact us at info@glaucoma.org.nz or call us on 0800 452 826.
A Glaucoma story – Sarah Kedgley

“I was diagnosed with glaucoma when I was about 30 years old – it was a lucky fluke as I had no reason at all to even think about Glaucoma...

...I had never heard of it, no family members had it and I did not wear prescription glasses. I accompanied a good friend visiting his Ophthalmologist and he suggested he check my eyes. To my great surprise I was told to go straight to Wellington hospital without delay. After many tests I was eventually diagnosed with glaucoma and was told that I would need an operation on both eyes to prevent going blind within 5 years.

That was the beginning. I had a trabeculectomy operation on both eyes and so my journey began with many more hospital visits including repair jobs on the blebs, multiple infections and so forth. I am sure there is a big fat file on my eyes somewhere in Greenlane Hospital - there are too many hair raising incidents to recount but here I am today, now at 69 years old. I am still with a reasonable amount of sight that I can do most things I enjoy, and thanks to the experts, doctors and surgeons who have worked on my eyes over the years for which I am so grateful to. I was able to continue with my career in the fashion design business which involved lots of travel overseas and later in a travel business which I am still involved with.

Unfortunately I have recently been diagnosed with end-stage glaucoma and hope that the end-stage doesn’t come too soon.

How has it been? I just did what was required to be done. At times I have been more than a little stressed and in certain instances very anxious and even fearful. I certainly encourage everyone to get their eyes tested as early as possible so that glaucoma can be picked up early and treatment started straight away to prevent unnecessary vision loss.

I consider myself lucky to have got this far and can still see heaps. Thank you to all who work at Glaucoma NZ.”

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 wellbeing 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 and receives no government funding. We rely solely on donations, sponsorship, grants and fundraising.

All the information available to you from Glaucoma NZ is free.

To donate, please go to donation coupon on the back page of the Eyelights newsletter. To donate online visit www.glaucoma.org.nz
Glaucoma: How to Save Your Sight

“With this book we wish to enlighten our readers and provide quality information to minimise visual disability from glaucoma,” Professor Ivan Goldberg.

Glaucoma Public Meetings for 2018

Public meetings provide awareness and education on glaucoma not just for you but also your friends and family – so please extend the invitation. We have the following up and coming meetings booked:

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Guest Speaker</th>
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<tr>
<td>Sat 14 July</td>
<td>Alexandra Park Conference Centre</td>
<td>Dr Mark Donaldson</td>
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<tr>
<td></td>
<td>Greenlane West, Gate B, Level 3 Central Auckland</td>
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<tr>
<td>Sat 4 Aug</td>
<td>Howick Library, Fencible Lounge</td>
<td>Dr Sonya Bennett</td>
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<tr>
<td>10am</td>
<td>25 Uxbridge Road, Howick East Auckland</td>
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<tr>
<td>Sat 22 Sept</td>
<td>Admirals Motor Lodge, 161 Middle Renwick Rd</td>
<td>Martyn Crossley</td>
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<tr>
<td>10am</td>
<td>Springlands, Blenheim</td>
<td></td>
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<tr>
<td>Sat 6 Oct</td>
<td>Commodore Airport Hotel</td>
<td>Dr Allan Simpson</td>
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<tr>
<td>10am</td>
<td>449 Memorial Ave, Burnside Christchurch</td>
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<tr>
<td>Sun 7 Oct</td>
<td>Trailways Hotel, Rivers Conference Room</td>
<td>Richard Newson</td>
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<tr>
<td>10am</td>
<td>66 Trafalgar Street, Nelson</td>
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<tr>
<td>Sat 10 Nov</td>
<td>East Bay Reap, Whakaari Room</td>
<td>Dr Andrew Thompson</td>
</tr>
<tr>
<td>10am</td>
<td>21 Pryne Street Whakatane</td>
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</table>

An invitation will be sent out closer to the time of the event or visit www.glaucoma.org.nz to keep up with any updates.

Purchasing the newly released ‘Glaucoma: How to save your sight’ book will be a valuable resource for yourself and your friends and family in further understanding glaucoma. Also 50% of the book sale price will go to help Glaucoma New Zealand continue their sight saving work.

To purchase your copy please go to www.glaucoma.org.nz/booksale. Alternatively you can call us on 0800 452 826 or email us at info@glaucoma.org.nz

\[additional cost of $5 for postage and courier\]
The Gordon Sanderson Scholarship Fund

The Gordon Sanderson Scholarship Fund was setup in memory of Associate Professor Gordon Sanderson who was a founding trustee of Glaucoma New Zealand and passionate about the prevention of blindness from glaucoma. The scholarship will be available to medical students, ophthalmologists and optometrists at Otago, Auckland or Sydney University who will be undertaking research or teaching in glaucoma.

The first scholarship was awarded in 2017 to Auckland University Student Hilary Goh for her project ‘nail fold capillary abnormalities in glaucoma’ supported by Professor Helen Danesh-Meyer. The project explored whether the nail fold capillary health can be used as a biomarker for glaucoma progression. This is used on the hypothesis that glaucoma involves vascular dysautoregulation. There is some evidence to support this from Harvard which demonstrates there is a difference between the nailfold capillary of glaucoma patients compared to controls. Hilary’s project is an extension of this work to see if it correlates with glaucoma severity and progression.

Applications for the next scholarship will be open in June and we wish to thank all those who have donated to the fund.

A great gift for family and friends – something for everyone!

The Entertainment™ Book is a restaurant and activity guide that provides hundreds of 25-50% off, and 2-for-1 offers from popular restaurants, cafes, cinemas, hotel accommodation and attractions throughout Auckland, Whangarei and Bay of Islands / Waikato and Bay of Plenty / Wellington and Manawatu / Christchurch, Canterbury and Nelson / Dunedin, Invercargill, Queenstown and surrounds, as well as Australia. Glaucoma NZ receives a donation from every book sold.

Order your Entertainment Book now and not only will you receive over $15,000 in valuable offers, valid to 1st June 2019, but you will also help raise vital funds for the ongoing work of Glaucoma NZ.

To purchase your Entertainment Book, including Digital Membership which allows you to redeem offers directly from your iPhone or Android smartphone visit, www.entertainmentbook.co.nz/orderbooks/102253y or phone 0800 452 826.

Help Us Save Paper!

We now have the option of sending our newsletter to you via email. If you would prefer your newsletter via email please let us know by emailing us at info@glaucoma.org.nz or phoning us on 0800 452 826 and providing us with your full name and email address.
LIGHT UP GLAUCOMA
GLAUCOMA AWARENESS APPEAL 1 – 31 JULY 2018
Help us shine a light on the problem

Glaucoma NZ’s Annual Awareness Appeal is in its 10th year. And to make it the best yet, we would like to invite you to help us raise a record number of funds and increase awareness.

There are three ways that you can make a difference:
- Join us in our mission to raise vital funds towards our mission to eliminate blindness from glaucoma by creating your own fundraiser, or by making a donation.
- Invite your local retail outlets to display one or more of our donation boxes offering GNZ appeal pens for $3 each.
- Raise awareness within your community by sending / gifting the enclosed postcards to both a family member and a friend to encourage them to have regular eye checks.

Without regular eye checks, glaucoma goes undetected and the risk of glaucoma increases 10 fold in families for someone who’s already been diagnosed with glaucoma.

We are truly grateful to our loyal supporters of optometrists, ophthalmologists, pharmacists and other organisations around the country.

We need to make glaucoma a highly visible disease so that we can eliminate unnecessary blindness from glaucoma. We can only do this if we partner together.

Thank you to our appeal sponsors and supporters.
Glaucoma and Macular Degeneration

Macular degeneration and glaucoma are very different conditions that get more common with increasing age and are capable of causing blindness.

**Macular Degeneration**
The macula refers to the central area of the retina that is specialized for seeing fine details. It is 6mm in diameter and lines up with the direction of gaze i.e. it lies on the visual axis. The eye chart, with its letters of decreasing size, is the main way of testing how well the macula is working. With increasing age the macula can wear out, and become less efficient at clearing waste. The centre of the retina develops irregularities (pigment changes) or blemishes (drusen). This is early evidence of macular degeneration. These are visible to the doctor or optometrist, but usually don’t affect the vision. As macular degeneration worsens, the vision becomes affected. This is experienced as difficulty with reading and near work, distortion of straight lines, or both. The effect on central vision can be significant. Treatments, including the injection of medication into the eye, are available for some types of macular degeneration.

**Glaucoma**
Glaucoma affects the optic nerve, the nerve of sight. The optic nerve carries all the electrical impulses from the retina, including those from the macula, to the brain to create visual images. In glaucoma the optic nerve wastes away slowly. In all but the advanced stages the sufferer is not usually aware of this. This is because the vision lost first in glaucoma is side (peripheral) vision and not central vision as with macular degeneration. The central vision nerve fibers are usually the last to be damaged in glaucoma.

Generally people are not aware of losing side vision unless it happens suddenly. Even though you think your experience of vision is one integrated whole in actual fact it is not. Those with glaucoma who have lost side vision are not necessarily aware of it because the mind’s eye paints the world in. Take the blind spot for instance. Everyone has a blind spot and if you actively search for it you can find it, but you are otherwise not aware of the blind spot because the brain fills in the gap. Visual field tests are undertaken to determine the extent to which the side vision has been degraded and reference the effectiveness of glaucoma treatments.

Volunteers Needed!

Glaucoma New Zealand is a small team with big dreams and we are looking for volunteers to support our mission to eliminate blindness from glaucoma. We have the following volunteer roles available:

- **Membership Volunteers x 6**
  To phone members on the GNZ database to update their details. This is a short term 12-16 week role between August – November and will be based at the GNZ office located in Grafton, Auckland. There will be a rotating roster with an ideal commitment of at least 8 hours a week. You will need to have a friendly confident phone manner and be comfortable with putting data into an excel spreadsheet.

- **Support Group Volunteers x 10**
  To help run our support groups in the following regions for a commitment of at least 12 months.
  - Auckland South – Manukau
  - Auckland North – Glenfield
  - Auckland West – Henderson
  - Wellington
  - Dunedin

If you would like to find out more about the volunteering opportunities, please contact our General Manager at: ana.lee@auckland.ac.nz or phone 0800 452 826 Mon - Fri 9am – 4pm.
YES! I would like to help Glaucoma NZ save sight

Title □ Mr □ Mrs □ Ms □ Miss □ Other

First Name ________________________________

Last Name ________________________________

Name to appear on tax receipt ________________________________

Street Address ________________________________

Suburb ________________________________

City ________________________________ Postcode ________________________________

Email ________________________________

Phone (home) ________________________________

Phone (mobile) ________________________________

□ YES! I would like to become a regular donor

I would like to give a gift (choose one)
□ Single □ Weekly □ Monthly □ Annually

Amount $200 □ $150 □ $100 □ $50 or $ ___________

I would like to pay by (choose one)
□ Cheque enclosed
□ Credit Card VISA / Mastercard (circle one)

Card Number ________________________________

Cardholders name ________________________________

Amount $ ___________ Expiry Date ____ / ______

Signature ________________________________

□ I will give by direct Credit to:

Bank Act: 12-3013-0180964-00 REF: Name

I would like to receive more information about:
□ Donating on a regular basis by Automatic Payment

For online donations visit www.glaucoma.org.nz

Please complete this form and return to:

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

Donations over $5 are tax deductible.

Your donation can save sight!

An estimated 91,000 Kiwis have glaucoma, but only half know it. Without diagnosis and treatment, there are 45,500 people – in families and communities around the country – who could lose their sight.

Glaucoma NZ is asking for your help to raise funds to engage a Community Eye Health Educator to work across New Zealand to increase awareness of glaucoma, develop resources and manage support groups for those with glaucoma.

Please consider making a donation towards this endeavour to eliminate blindness from glaucoma. Whatever you can contribute will make a difference.

We simply can’t do what we do without you! Together, we can light the way to a future where unnecessary blindness from glaucoma is eliminated.

Bequests

Have you thought about leaving a gift to support the future work of GNZ and its aim to reduce the incidence and impact of glaucoma in New Zealand?

Contact us to find out more on info@glaucoma.org.nz or call 0800 452 826

We acknowledge with gratitude bequests in loving memory of:

In Memoriam

Estate of the late Dean Dickson Jack