In the previous edition of Eyelights we covered glaucoma in Asian populations which accounts for a disproportionate amount of the glaucoma burden: 60% overall and 80% of angle closure.

In this edition we look at other populations from around the globe and how glaucoma affects them.

The worldwide prevalence of glaucoma is increasing. This is due in part to the rapidly aging population. It is estimated that by 2020 the number of people in the world with primary glaucoma will be almost 80 million, with over 11 million suffering from bilateral blindness. Interestingly, the type and severity of glaucoma varies across the world.

New Zealand/Australia (European descent)
The most common type of glaucoma in New Zealanders of European descent is open angle glaucoma. This type of glaucoma has no symptoms until very late in the disease. It is estimated that 10% over the age of 70 and 2% over the age of 40 have glaucoma. It is the leading cause of preventable blindness.

Maori
Interestingly, glaucoma is almost non-existent amongst Maori. The reason for this is unknown but it is an exciting observation that there are a group of people who have some genetic features that protect them from glaucoma.

Australian Aborigines
Interestingly, Australian Aborigines have exfoliation syndrome (they have the whitish material in their eye) but do not get exfoliative glaucoma. The reason for this is not known.

Scandinavians
Exfoliation glaucoma is a subtype of the disease that is caused by a condition called exfoliation syndrome. Small bits of whitish material flake off from cells in the eye and get stuck in the eye’s drainage system, leading to increased pressure.

Scandinavians have the highest rates of exfoliation syndrome in the world. People with Icelandic, Russian, Jewish, Irish, Middle Eastern, Indian and Japanese ancestry also have high rates of exfoliation syndrome.

A variation in one gene called LOXL1 accounts for more than 99% of cases of exfoliation glaucoma, probably by increasing the risk of exfoliation syndrome. These variations in LOXL1 do not increase the risk for any other type of glaucoma.

Eskimos
Studies amongst Alaskan Eskimos have shown that open angle glaucoma is rare but there is a higher occurrence of angle closure glaucoma. In particular older Eskimo women are at high risk for developing angle closure glaucoma.

African Heritage
Open angle glaucoma affects those of African heritage more. It occurs about five times more
often in African-Americans, and blindness from glaucoma is about six times more common. In addition to this higher frequency, glaucoma often occurs earlier in life - on average about 10 years earlier than in other ethnic populations. Although the reasons for these findings are unknown, researchers are becoming more and more certain that those of African heritage are genetically more susceptible.

**Hispanic**

Open angle glaucoma is more common among U.S. Hispanics than previously thought and is the leading cause of blindness. A study in Los Angeles reported that glaucoma is four times more common in Latin Americans and that 75% were not aware that they had the disease.

**When my blood pressure goes up, what happens to my eye pressure?**

If something caused your blood pressure to rise, your eye pressure might go up immediately. Just as quickly your eye would compensate for this and return your eye pressure to its usual level (homeostasis). However, increased blood pressure over a longer period of time could lead to decreased circulation to your eye which would be detrimental to glaucoma.

**What is the ideal eye pressure for me?**

Every individual has a unique pressure that is good for their eye. Whereas one person may have a pressure of 29 and be on no drops, another person may have a pressure of 15 and be going blind. Each person should ask their physician what their ideal pressure is — a goal which is determined by each person's unique history, exam, and testing. One size does not fit all when it comes to a pressure target.

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**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 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
Doctor - What are the chances I will get glaucoma? Some good news.

Although glaucoma remains an incurable disease, for many people with this diagnosis the news isn't all bad. In this article, we discuss the risk factors for developing the most common type of glaucoma (open angle glaucoma) and what this means for people of different ages and backgrounds.

Worldwide, the prevalence of open angle glaucoma is about 3.0%, meaning 3 out of every hundred people will have the disease, whether they know it or not. The chances of developing glaucoma increase with age, such that the prevalence is roughly 1%, 2%, 3.5% and 8% for those in their 50s, 60s, 70s, and 80+ respectively. Ethnicity also plays a part. People from Africa are almost 3x more likely to have glaucoma than those of European ancestry. Also, as you probably know, your risk for developing glaucoma is increased if you have a first degree relative with the disease. If one of your parents has the disease, your risk is doubled. If a sibling has glaucoma, your risk is increased by a factor of 3.5.

You may also know that the risk of developing glaucoma can depend in part on the intraocular pressure, the indirectly measured pressure within the eyeball. Until very recently, doctors weren't sure which patients with high eye pressure, if any, needed treatment. The primary goal of the Ocular Hypertension Treatment Study (USA 2002) was to determine whether reducing elevated eye pressure delayed or prevented the onset of glaucoma. In addition to confirming that treatment was effective, researchers also found which patient characteristics were most predictive of glaucoma risk. As well as age, a thin cornea was found to be an independent risk factor. These factors, combined with the amount of cupping of their optic nerves and the degree to which their field of vision differed from the normal result for their age allowed researchers to develop a rough risk prediction calculator. You can find this prediction tool online at https://ohts.wustl.edu/risk. Using this tool, your eye doctor should be able to tell you your risk for developing glaucoma over the coming 5 years, to the best of our current understanding.

The picture is not all gloom and doom however. Only about 1 in 10 patients treated for their glaucoma will end up blind in one eye. This includes those who have neglected their treatment. So if you are conscientious about taking your treatments, your chances are even better. Glaucoma is generally a *slowly* progressive disease. One recent report*, which examined the rate of visual field loss, found that fully half of the patients studied would take 50 years to go from no disease to blindness. There are, of course, a significant minority who progress much faster, losing significant vision in 10-15 years. Lastly, the age of onset and status of disease at time of diagnosis are important considerations in determining likelihood of blindness or functional impairment. The average life expectancy is now 80 years for men and 83 years for women in New Zealand. If you are told you are in the early stages of glaucoma on your 70th birthday, the chance that you will develop vision loss that affects your daily life during your expected lifetime is probably small. Often doctors will decide, in consultation with the patient, to simply observe them and not treat their glaucoma with medications.

In summary, while glaucoma remains an incurable disease, it will progress slowly for most patients and the majority will retain useful vision to the end of their lives.

July is Glaucoma Awareness Month

Getting a sporting chance to beat a silent robber of sight

A chance encounter with a Kiwi sporting legend and his wife saved Andy Dickerson’s eyesight from serious damage.

Sports fan Andy spotted former cricketer Sir Richard Hadlee and his wife Dianne on the front cover of the New Zealand Women’s Weekly when he was searching for something to read at the hairdresser.

Richard and Dianne are Glaucoma New Zealand Ambassadors and the pair were encouraging people to get their eyes tested regularly.

Andy decided to heed that advice and in early 2016 he was diagnosed with primary open angle glaucoma – a condition with no early symptoms that could have made him blind.

“This came as a shock to me as I had always had very good eyesight, no symptoms and no family history. Glaucoma was the last thing in the world I expected to be diagnosed with,” Andy says.

“Without that eye examination, I could have had irreversible damage to my eyes by the time symptoms began to appear.”

Andy, a Canterbury District Health Board member, says like many people in Christchurch his home was badly damaged in the earthquakes and it took years to resolve insurance issues. He then moved to North Canterbury. It was during this unsettling period he let his eye appointments slip.

“I’ve worked in the health sector my whole career – I should have known better. I should have had an eye test much sooner.”

He’s sharing his story in support of July’s Glaucoma New Zealand Awareness Appeal in the hope he can convince others to get their eyes checked, and donate to the charity.

“I am asking everyone to support Glaucoma New Zealand and help get the message out there in our communities and workplaces that regular eye tests can save your sight.”

Andy says his prognosis is good because he sticks to a daily routine of taking prescribed eye drops and keeping up with eye checks.

“I am very hopeful of keeping my sight if I continue with the treatment. At 54 years of age there is always the chance a better treatment will be developed in the future. I consider myself extremely lucky.”

Sir Richard says diary an eye appointment today!

Sir Richard Hadlee says it’s “a great feeling” that he and Dianne can make a difference through their roles as ambassadors for Glaucoma New Zealand.

“You have to keep your eye on the ball when it comes to your health checks,” Richard says.

“Men can be blazé and think: ‘she’ll be right mate’ – but then one day things might not be right. You can’t afford to be macho about it, you have to get the checks done.”

“There are no excuses. Make an eye appointment and put it in your diary.”

Glaucoma is the leading cause of preventable blindness in New Zealand.

“Eyesight is so important because you want to be able to see the world and your grandkids,” Richard says.

Richard says his late mother Lilla’s sudden blindness in one eye in 2004 made him aware of the impact of eye conditions.

“It makes you sit up and take notice. It shows how vulnerable we are,” Richard says.
Early detection of glaucoma is vital in preventing blindness

That means having 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, don’t rely on hobby glasses, it’s a good idea to have your eyes checked by an eye health professional, just in case there is an underlying problem.

Also if you have risk factors for glaucoma, such as family history, then you may need your eyes checked more frequently.

“I had open heart surgery in 1991 and I was given another chance. It taught me respect for life and to make the most of your life. Your health is a very important thing to protect.”

Richard says Glaucoma New Zealand’s annual appeal is a great cause to support because there is no cure and funding research is vitally important.

Extract – July Media Release

Glaucoma New Zealand’s July Awareness Appeal is a call to action - with a focus on getting people to have their eyes examined, raising awareness of glaucoma, and generating vital funds to enable GNZ to continue its sight saving work.

“Glaucoma is the leading cause of preventable blindness. What makes glaucoma unique is that if glaucoma is diagnosed early and treatment started in a timely fashion, blindness becomes rare,” Professor Helen Danesh-Meyer, Chair of Glaucoma New Zealand, says.

Glucoma NZ offers services to everyone affected by and concerned with glaucoma; advocating for regular eye checks, educating the public and health professionals, providing support and information to those with glaucoma and their families, as well as contributing to research.

“Raising funds for Glaucoma NZ to keep saving what most people consider their most precious sense, sight, plays an important role in this year’s campaign. Since 2002, GNZ has strived to make glaucoma a highly visible disease so people are more aware of the importance of getting their eyesight checked regularly”, says Glaucoma NZ Executive Manager, Helen Mawn.

• Lending their loyal support are the optometrists, ophthalmologists, and pharmacists around the country who have taken GNZ’s donation boxes.

• Many optometrists and ophthalmologists are also donating $2 from each eye examination undertaken during July and we are grateful for the donations that we have received in lieu of taking donation boxes.

• A number of businesses and organisations are participating, taking donation boxes, or giving a donation.

Donations can be made via our website www.glaucoma.org.nz, by completing the coupon on the back page of Eyelights, or by visiting your nearest ASB Branch.

Thank you to all of this year’s July Appeal participants! Your continued support is appreciated.

Thank you to our Appeal Sponsors
What You Can Do to Manage your Glaucoma in Daily Life

Keeping track of glaucoma medications along with your other schedules and responsibilities can be challenging.

By getting informed, making healthy choices, and keeping organised, you can establish a routine that works for you. We hope you find the following tips helpful in managing your glaucoma.

Know Your Medication

• Tell everyone on your health care team, including your family doctor and other specialists, that you have glaucoma and what medications you are taking. This will help them in prescribing treatments that won’t interfere with your glaucoma medications. Be especially careful about using any medication that contains cortisone.

• Some medications may cause you to experience strong side-effects. Be sure to tell your doctor about any side-effects you experience once you have started your medication. The intensity of your side-effects may mean you need a different type of medication.

• Let your doctor know if, for any reason, your medications are not working for you, or if your daily routine has changed. Your doctor may be able to solve such problems by changing the type or timing of your medications.

• Report any changes to your doctor, especially eye irritation, watering, blurring or scratchiness, unusual discharge in the corner of your eye, temporarily cloudy vision, or rainbows around lights at night.

Medication Tips

• Make your medications part of your daily routine, perhaps by taking them when you get up, at mealtimes, and/or at bedtime. Use an alarm on your watch or phone to remind you when to take your medication.

• If you forget to take your prescribed medication, take your medication when you remember, then get back on your regular schedule.

• Get an extra supply of medication in case you misplace a bottle of eye drops or pills. Take an extra prescription along with you on trips away from home.

Stay Organized

• Use the Glaucoma NZ Membership Identity Card to keep a record of each medication you are taking. Write down the name, dosage, and the number of times it should be taken each day. Keep it in your purse or wallet. This reminder can help you remember how often to use your medications.

• Schedule your next check-up before you leave the doctor’s office, and put the appointment on your calendar or smartphone.

• Go for a check-up before you go on a long trip or start a long-term, demanding project.

• Write down any questions you have about your eyes, vision, or medications before you see your doctor. During your check-up, bring this list of questions, and write down your doctor’s answers.

Stay Healthy

• Try to keep your eyes clean and free of irritants. Women should be careful about eye cosmetics, use non-allergenic brands and replace them often.

• Don’t rub your eyes, even though some glaucoma medications might make them feel itchy or blurry.

• Wear goggles when swimming, and wear protective glasses when doing yard work or when playing contact sports.
• Take care of the rest of your body. Keeping in good general health is just as important as taking care of your eyes.

• Eating healthy foods, getting enough exercise, not smoking, not ingesting too much caffeine, and staying at a healthy weight are important. Check with your doctor before you start any strenuous exercise programme.

• Space out your fluid intake, and lower your salt intake. This will help prevent fluid retention.

• Reduce the day-to-day stress in your life. Be sure to make time for fun and relaxation.

Source – Glaucoma Research Foundation, San Francisco

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The Southern Trust

Contributors to Eyelights

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Dr Dean Conger
Prof. Helen Danesh-Meyer
Assoc. Prof. Gordon Sanderson

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Glaucoma New Zealand Symposium 2017

The Glaucoma New Zealand Symposium will be held in August 2017. Be part of this one day education event for optometrists and other eye health professionals.

Ophthalmology and optometry working together to ensure the best possible outcomes for glaucoma patients.

• Where: Alexandra Park Function Centre, Green Lane West, Epsom, Auckland. There is plenty of free parking at the venue.
• When: Sunday 13 August 2017, 8.15 am – 5.00 pm.
• Conference Programme: It will be an exciting whole day of glaucoma education from both ophthalmologists and optometrists including our key note speaker Professor Steven Dakin together with Professors Charles McGhee and Helen Danesh-Meyer, Associate Professor Gordon Sanderson, Doctors Sonya Bennett, Alex Buller, Shenton Chew, Sam Kain, Hannah Reeves, Jim Stewart and Kristine Jensen.
• Morning session will be 12 minute presentations on themes of – Clinical Pearls for Glaucoma Management, Tricks of the Trade and Paradigm Shifts in Glaucoma Management.
• Afternoon session will focus on interactive cases and panel discussions regarding shared-care, diagnosis and treatment strategy. Further information about the programme will be uploaded to the Glaucoma NZ website as it becomes available.
• Cost: $120 per delegate for a full day of glaucoma education.
• Professional Education: TBC - Application for up to 6 clinical diagnostic (CD) professional education points.
• Registration: For more information and to register visit www.glaucoma.org.nz

Thank You to our Silver Supporters
**July Annual Awareness Appeal**

WE NEED YOUR HELP to continue our vital work of saving sight. Please support our efforts to eliminate unnecessary blindness from glaucoma.

An estimated 91,000 New Zealanders over the age of 40 currently have glaucoma. 50% of these people don’t know they have it.

Since 2002 we have reached thousands of New Zealanders with our nationwide programmes but there is still much more to be done.

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

Your support is important to us – we can’t do it alone.

THANK YOU for your continued generosity - every donation counts!

YES! I would like to make a donation to the Glaucoma NZ’s **July Awareness Appeal**

☐ $300  ☐ $100  ☐ $50  ☐ $20

☐ $__________________________ (other)

Name  ________________________________________
Address  _______________________________________
______________________________    Postcode_______
Ph ____________  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 gift in my Will to Glaucoma NZ
☐ I have already included Glaucoma NZ in my Will

**The Trustees of Glaucoma NZ**

Professor Helen Danesh-Meyer (Chairperson)
Dr Mark Donaldson
Dr Sam Kain
Associate Professor Gordon Sanderson (Deputy Chairperson)

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