

The first measure of New Zealand's glaucoma prevalence

The Dunedin Multidisciplinary Health and Development Study is a visionary project that was started in the early 1970s and continues to yield fascinating insights into human ageing and our interaction with the environment.

Over 90% of the babies born in Dunedin during April 1972 to March 1973 were enrolled into this longitudinal cohort study (1,037 births), and after 45 years they continue to have 94% retention of all the surviving study members so the observations are fairly representative of the New Zealand population. Along the way this study has looked at countless associations and connections, the long term effects of childhood development and trauma, allergies and diet, tobacco and cannabis, and how these childhood factors relate to aging and health in middle age. When it comes to eyes and vision, ophthalmologist Dr Graham Wilson and his team of collaborators in the Dunedin Study have looked at how findings in the eye contribute to measurements of biological ageing as well as several other studies.

Recently a medical student, now junior doctor, Dr Aqeeda Singh,

together with the team at the Dunedin Study, Dr Wilson, and myself, reviewed comprehensive eye examination findings from the participants at age 45. The goal was to consider how many of the participants had glaucoma, which made this the first estimate of glaucoma prevalence in New Zealand. Until now, we have assumed that the prevalence in Australian studies was similar in New Zealand, but it is important to test this assumption. The study also allowed us to look at how new optical coherence tomography (OCT) scanners affect the estimated prevalence of glaucoma.

At age 45 there were 7 people with glaucoma (0.8%), plus 1.7% with raised intraocular pressure (IOP), plus 7.3% who were glaucoma suspects. Nearly all of the glaucoma suspects were suspected based on the OCT scan, and there were another 8% who had abnormal OCT scans but were



*Dr Jesse Gale, Wellington
ophthalmologist*

normal in every other measure. It was a little surprising that all glaucoma patients had normal IOP, all those with raised IOP had normal healthy optic nerves.

This prevalence estimate of 0.8% is in line with other populations, and we plan to measure the incidence of new glaucoma cases as they age into the future. Perhaps the most important finding from this study was that it would be unwise to do OCT scans on the whole community, because nearly all of the people with abnormal scans are actually healthy. Screening for glaucoma remains a subtle and challenging issue.

Sharing knowledge

It's my pleasure to share the latest updates on how your loyal support is helping people affected by glaucoma.



Lottery funded Glaucoma NZ to facilitate a day for our support group leaders to share their ideas and knowledge by working together to find the best way to grow our support group programme. We are grateful to have the support of our dedicated support group leaders, who generously give their time and energy to facilitate our monthly meetings.

I want to acknowledge Stella, who literally gives a birthday gift of sight-saving eye tests to her family members and generously shares her story, encouraging us to do the same so that future generations understand the risks of inherited glaucoma. We hope you'll discuss glaucoma with your family and encourage regular eye checks.

Like many of you, Covid forced us to postpone planned events; however, we are delighted to have set a date for the Wellington patient symposium on Sunday, 18th of September. Covid moved our thinking beyond the conference room to deliver patient education seminars online, so keep an eye out on our website for future presentations.

We can't thank YOU enough. Your generous contributions make it possible for us to be there with a free service to make a real difference in the lives of people affected by glaucoma.

I hope you enjoy this newsletter. Please feel free to get in touch at any time; we value your feedback.

Warm regards,

Pippa

General Manager

Volunteer Support

Lottery Support for Volunteering Fund generously invested in an event to bring our volunteer Support Group Facilitators to Auckland for a day of discussion and to get to know each other to work together more effectively.



"It was very interesting to share ideas with other support groups and pick up some new ideas to take back to ours. This new shared knowledge will be incorporated into the planning of our future meets" **Trish Murfitt**



Glaucoma NZ volunteers are highly valued and integral to achieving our purpose to improve the lives of people with glaucoma. They encourage you to take an active interest in and understand your eye health and share your story to help others on the same journey. Reduced anxiety, fun, and friendship are added benefits of being part of our support groups as a member or volunteer.

We are looking for support group leaders for your community. Please call Karon at **0800 452 826** or email info@glaucoma.org.nz to register your interest. Support group meeting locations & times are on our website www.glaucoma.co.nz

If you would like more information about these groups, please contact Karon.

North Shore, Auckland Central, Warkworth, Christchurch, Timaru, New Plymouth, Hamilton.

A birthday gift of sight

Stella has given her sister, granddaughter, and future family members the gift of sight.

When Stella was diagnosed with glaucoma in her mid-sixties, she immediately rang her younger sister to encourage her to get her eyes checked, and it was found she too had glaucoma. Both sisters were extremely surprised by the high pressure & glaucoma diagnosis, as they felt they could see well, although there were a couple of signs to suggest Stella may have eye health issues.

As a child, her grandfather had a white stick, but she didn't know why and was afraid, so she kept well clear of it. And while playing golf, she used to see a black banana over one eye. However, this was dismissed as a floater that would go away.

Stella offers all her family members, especially the grandchildren, what she describes as "family knowledge" and then offers them a prepaid eye appointment for their birthdays.

Recently, her eldest granddaughter attended her birthday eye check appointment and rang her grandmother to let her know

that her pressures were raised. She does not require treatment at the moment, but thankfully she is now under the watchful eye of her eye care specialist.

Stella's motivation for prioritising her and families' health undoubtedly stems from her nursing career as a general nurse. "We didn't train in eye health in those days, so I've had to learn a lot myself the hard way."

She remembers watching a television programme called, "No Look Cook," hosted by a young woman with low vision. It reminded her of her grandfather's white stick and inspired her to keep everything in the same place in the cupboard just in case her sight deteriorates.

Despite having several eye operations and some sight loss in her left eye, she remains active and independent with a great sense of humour. She attributes the good sight she has in her right eye to

adhering to her treatment plan and the support and care she receives from wonderful doctors, nurses, and Glaucoma NZ.

Gardening, mowing lawns, housekeeping, and cooking for the family keep her very busy. Recently she tasked herself with loading boxes of family photos onto SD cards to keep the stories alive for future generations, including now their family knowledge of glaucoma.



Having a family history of glaucoma: If you have a first-degree relative with glaucoma, the risk of having glaucoma is 5-10X greater. We encourage you to talk to your family, friends and colleagues about glaucoma. Shared knowledge may save the sight of your loved ones, as it did for Stella.

Glaucoma Professional Symposium Beyond Pressure

A hybrid one day education event with rapid fire presentations on glaucoma topics, discussing advances in technology & challenging cases. Keynote speaker: Dr Ridia Lim – University of Sydney

Ellerslie Event Centre, Green Lane Auckland.
Sunday 14th August 2022, 9.00am – 5.00pm
REGISTER NOW



GLAUCOMA NZ
TO SAVE SIGHT

Eye Believe

During March, we celebrated World Glaucoma Week with a positive affirmation to engage all New Zealanders in the action of having an eye health check in case they are one of the 50,000 people unaware they are living with glaucoma.

We asked people to tell us what they believed could be achieved with investment in education and research associated with saving sight and donating to raise funds for these projects.

Thanks to you, we raised over \$50,000 from this appeal which will help fund our patient education programme and patient-centered research projects.

Congratulations to the winners of our Eye Believe... competition. Thank you to the eye clinics, pharmacies, optometrists, retirement villages, GNZ members, and our campaign partners who contributed to the campaign's success.

Our special thanks to the Mayfair Club Bar Committee & residents at Mayfair Village, Auckland, who held

a concert to raise awareness and funds to support glaucoma education.

"Eye Believe... in the power of vision research" **Hannah**

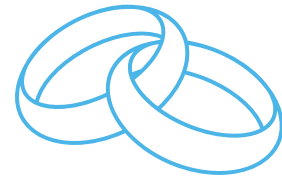
"Eye Believe... with education and research, my grandchildren will not go blind from glaucoma."
Shirley



I will prioritise my vision so I will see my future



Like a marriage



During our recent online education seminar, Ophthalmologist Dr. Divya Perumal discussed how to prepare for your ophthalmology appointment to know what to expect, reduce anxiety and feel empowered to make decisions with your eye specialist.



Dr. Perumal highlighted the importance of the relationship with your eye health providers and encouraged asking questions to understand your diagnosis and treatment plan. Professor Danesh-Meyer, Chair of Glaucoma New Zealand, describes your relationship with your glaucoma specialist as “like a marriage.” You’ll be together for the rest of your life; you’ll experience ups and downs, and the need for trust cannot be understated.

Some information that may be helpful to bring to your first appointment include:

- Copy of your referral letter
- Copy of your medical history – ask your GP for this. New Zealand privacy laws restrict medical practitioners from sharing your records, so don’t assume your eye specialist knows your medical history.
- List your medications or herbal remedies you are taking.
- Knowledge of family or inherited diseases. Do other family

members have glaucoma, heart disease, high blood pressure, diabetes, or any other disease?

- Any other allergies?

For this and following appointments, she recommends the following:

- Always take your medication/ treatment as scheduled up to and on the day of your appointment.
- Keep a record of your appointment date and time, and make sure you have enough time planned for travelling to and attending the appointment.
- Bring a written list of questions about your eyes, vision, or medications, and write down your doctor’s answers.
- Bringing a friend or family member to your appointment as a second set of ears can help you capture all the details from your visit. This can be especially helpful early in your diagnosis. Let the eye clinic know if you need an interpreter for your visit.

- Let your doctor know if, for any reason, your medications are not working for you or if your daily routine has changed.
- Report any new symptoms to your doctor, such as redness, irritation, itching, tearing, or decreased vision. Symptoms may be related to the disease, side effects, or complications of medication or surgery.
- Bring an updated list of medications to your appointment. Be honest about how regularly you have been taking your eye drops, which may influence treatment decisions. Any new medication added by other doctors should be mentioned to your glaucoma doctor.

If for any reason you are not feeling comfortable or lack confidence in your eye health provider, remember you can ask for a referral to someone else. Talk to your General Practitioner.

A new treatment for Pseudoexfoliation (PFX) glaucoma patients

For many glaucoma patients no cause can be identified. Pseudoexfoliation (PFX) syndrome is one of the few causes that can be identified as causing glaucoma. Glaucoma NZ estimates that PFX accounts for about 25% of all glaucoma. Glaucoma resulting from PFX usually is more severe, with pressures being higher, than many other types of glaucoma.

So, what is PFX? It is white flakes, which are clumps of protein, within the eye that look like dandruff. The white flakes clog the angle of the eye at the edge of the iris as well as the trabecular meshwork, which is the gutter that drains fluid away from the eye. These flakes slowly prevent fluid from draining properly causing a build-up of pressure inside the eye, sometimes to very high and dangerous levels.

PFX can be treated by glaucoma medications, laser treatment and a variety of surgical interventions of varying invasiveness.

Dr Van Tao Tran from Lausanne in Switzerland felt there should be an intervention for PFX patients when medication is not enough but is less invasive than current surgery options. He “wanted to liberate the angle of the dust (PFX particles) by simply washing it”. He partnered with Swiss company Fibrinal to create a new device called the Tran Cannula. Fibrinal started as a family-owned watch manufacturing business that diversified into eyecare in 2007. Their leading product is the ERG-Jet, a corneal contact lens incorporating an electrode that captures the electro-retinogram generated by the light stimulation of the retina.

The Tran Cannula is an irrigation cannula with an innovative

geometry characterised by two distinct water jets separated from each other by a 30° angle. The unique design of the cannula and the laws of micro-hydrodynamics cause these two independent fluid streams to merge into one, more powerful helical stream when they touch an obstacle. This allows the Tran Cannula to target and wash the PEX flakes from angle of the eye and the trabecular meshwork using a technique called a GonioWash. It is a 3-minute procedure usually done in conjunction with cataract surgery to lower pressure in the eye postoperatively.

Prof. Andre Mermoud from the Clinique De Montchoisi in Switzerland states that the Tran Cannula allows the surgeon to wash the angle of the eye without washing the cornea or iris roots. The Tran Cannula procedure achieves a 40% reduction in IOP, a 75% reduction in glaucoma treatment medications and no complications according to a study of 190 eyes (Dr. Tran, Dr. Mansouri and Dr. Mermoud).

Medix21 is proud to be bringing this innovative product to New Zealand to give glaucoma surgeons and their patients access to another option in the treatment of PEX glaucoma.



Having trouble with your eyedrops?

We are aware that some of our members have been running out of drops before the end of their prescription or being unable to accurately dispense the eye drops due to the firmness of the plastic bottle.

If you have had issues like this, please complete the form enclosed with this newsletter with your contact details and tick the box next to the statements acknowledging your experience and post it to us in the reply-paid envelope.

We understand that using eye drops can be a challenge for many patients. The Auto Drop® and Auto Squeeze™ have been developed to make self-administration as simple as possible to help you adhere to your treatment plan.

You can purchase these for \$20 each (including postage & GST) from our website or call Karon at 0800 452 826.



LOVE YOUR EYES Symposium Wellington

Hear from experts in glaucoma management,
treatments and lifestyle factors

Cable Room - Harbourside Function Venue - Wellington
Sunday 18th September 2022, 9.30am-11.30am
FREE event. Refreshments served

REGISTER NOW

Phone Karon **0800 452 826** or online
glaucoma.org.nz/patientsymposiums

GLAUCOMA NZ
TO SAVE SIGHT



Exercise saves sight

This is the message Dr Paul Baddeley, consultant ophthalmologist at St Georges Hospital Christchurch wants us to tell everyone.

In the May 22 issue of NZ Optics, he states that there is strong evidence that regular exercise has a neuroprotective effect, with regular activity improving brain function and reducing your risk of neurodegenerative diseases such as Alzheimer's and Parkinson's disease. "Given that the eye shares the same embryonic origins as the brain, it's no surprise that exercise

can also play a role in preventing ocular disease." For patients with glaucoma, exercise may reduce glaucoma risk since it's thought to reduce the risk of low ocular perfusion pressure. The aged optic nerve in mice has been shown to be protected from IOP-induced damage by forced physical activity.

Physical activity is well known to upregulate the formation of brain-derived neurotrophic factor (BDNF), which is important in the maintenance,



growth, and survival of neurons. Lower BDNF levels are observed in sedentary patients with glaucoma.

Invest in a future without blindness

We need your help to change statistics, fund life-changing education, support, and research and invest in a future without blindness from glaucoma.

A charitable bequest is a powerful way to make a positive difference to the outcomes of those with glaucoma and their families, far beyond your lifetime.

If you have already included a gift in your will to Glaucoma New Zealand or would like to find out more please let us know by calling Karon, **0800 452 826** or emailing info@glaucoma.org.nz, or complete your details and tick the box on the support form enclosed and post back in the prepaid envelope.



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 and provided to members of Glaucoma New Zealand and the general public is free.

Contact us to find out more on info@glaucoma.org.nz or call **0800 452 826**
To donate online visit www.glaucoma.org.nz



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