Eyelights
The Newsletter of GLAUCOMA NZ

Glaucoma NZ - The People

Did you ever wonder how this newsletter reaches you? Many people are involved along the way. There are the ophthalmologists, optometrists, scientists and other guest writers who contribute articles. Editing is done in our Glaucoma NZ office, and then the layout is prepared by a graphic artist. The digital file goes to the printers, who print and deliver the cartons of newsletters back to our office. And that’s when the heroes step in!

A team of volunteers, mostly glaucoma patients, come in to the office and spend many hours folding newsletters, stuffing them into envelopes and sticking on address labels. The job takes the best part of a day. Some of the volunteers then take loads of full mail sacks across the road to the Post Office. So three cheers for the volunteers!

The quarterly ‘newsletter stuffers’ are not our only volunteers. The GNZ office couldn’t function effectively without the generous assistance of two special women who give up one day each week to help with data entry and mail-outs. Elizabeth and Christine make a tremendous contribution to the work of Glaucoma NZ and we thank them for it.

Also supporting us are people all around the country – Glaucoma NZ members and Lions Club members - who assist with our public meetings. Their support is much appreciated. And so is yours. The attendance at our public meetings and the interest engendered by our newsletters reminds us that we’re part of a people-rich organisation.

Glaucoma NZ volunteers prepare ‘Eyelights’ for posting

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Glaucoma NZ’s Neighbours

The Glaucoma NZ office has some very interesting neighbours:

The University of Auckland, Department of Ophthalmology

The Ophthalmology Department at the University of Auckland is at the forefront of both teaching and research. Teaching and research programmes focus on the clinical, cellular and molecular aspects of the visual system. The department is headed by distinguished ophthalmologist and scientist, Professor Charles McGhee. Professor Colin Green leads laboratory based research within the department. The close collaboration between ophthalmologists and scientists in the department is resulting in exciting translational vision research.

Department of Ophthalmology academics include many well known eye specialists and scientists, including glaucoma and neuro-ophthalmology specialist Associate Professor Helen Danesh-Meyer and ophthalmic genetics expert Andrea Vincent. Other staff in the department include clinical and laboratory researchers, ophthalmologists-in-training, (it takes 14-16 years of study to become an eye specialist), and science technicians.

Recently the laboratories in the Department of Ophthalmology were refurbished. There are now two premier translational vision research laboratories. If you are interested to learn more about the Department of Ophthalmology visit their website at http://ophthalmology.auckland.ac.nz

The University of Auckland’s Department of Ophthalmology has been extremely supportive of Glaucoma NZ right from the outset, even to the extent of allowing Glaucoma NZ to occupy an office within the department. Professor McGhee and his team are the definitive ‘good neighbours’.

Clinical and Experimental Ophthalmology (CEO)

Another neighbour is the editorial office of an important academic medical journal. Clinical and Experimental Ophthalmology (CEO) is the official journal of the Royal Australian and New Zealand College of Ophthalmologists. Ranked 23 of the top 42 ophthalmology journals worldwide, CEO publishes peer-reviewed original research and reviews dealing with all aspects of clinical practice and research in ophthalmology and vision science. The Journal distributes 9 issues per annum, in both hard copy and online access.

Next Newsletter: The New Zealand National Eye Bank
Thyroid Eye Disease and Glaucoma

The most common cause of bulging eyes is thyroid eye disease. Occasionally thyroid eye disease can cause increased pressure in the eyes or, very rarely, damage to the optic nerve behind the eye.

Although the thyroid gland is located in the neck, problems in the gland’s function may lead to changes in the eye and orbit (eye socket). The combination of thyroid dysfunction and eye changes is called Graves’ disease or thyroid eye disease. The eye symptoms usually appear when thyroid hormone levels are too high but can occur when these levels are normal or below normal.

In Grave’s disease, an autoimmune disease, the immune system attacks the thyroid gland causing it to produce excess thyroid hormone. Thyroid hormones control your body’s metabolism which is vital in managing things such as your mood, weight, and mental and physical energy levels. The extra thyroid hormone produced can lead to a variety of complications in overall health.

The extra hormones also act on the tissues behind the eyeball. These get inflamed and attract and hold water. This leads to swelling of tissues and muscles, causing the eyeball to protrude forwards and also leads to some decrease in mobility of the eyeball. The eye symptoms of this condition include proptosis (protrusion of the eyeball forwards), swelling of the tissues around the eyes, redness and irritation of the eyes, watery eyes, blurring or double vision and decreased movements of the eyes.

The swelling of the tissues behind the eye and tightening of the muscles can also cause elevation of the pressure in the eye. The tight muscles mean the pressure is especially elevated when looking up. Elevated pressure in the eye is just one of the features of glaucoma. Before a diagnosis of glaucoma is made, there needs to be changes in the optic nerve head, at the back of the eye, and abnormalities on the visual field test.

In rare circumstances, the orbital swelling may be so severe that the optic nerve, which is responsible for sending information received from the eye to the brain, may become strangled, resulting in severe or total visual loss.

Thyroid eye disease is a rare condition which can lead to elevated pressure in the eye and the suspicion of a diagnosis of glaucoma.
Glaucoma - a Multiplicity of Conditions

Although we commonly refer to glaucoma as if it were one disease, it might be more helpful to refer to “the glaucomas” plural. This is because glaucoma is actually a range of conditions in which the common feature is damage to the optic nerve, the nerve which delivers sight messages to the brain. If you have been diagnosed with glaucoma, do you know which condition you have? If not, ask your eye specialist at your next visit.

Open Angle Glaucoma
Primary open angle glaucoma is the most common form of glaucoma. It happens when the eye’s drainage canals become clogged over time or the tissues around the canals harden. This results in the pressure in the eye increasing because the fluid cannot drain out of the eye. In Open Angle Glaucoma it is not the entrances to the drainage canals which are blocked, but rather a clogging inside the drainage canals. Most people have no symptoms and no early warning signs. If open angle glaucoma is not diagnosed and treated, it can cause a gradual loss of vision. Factors which indicate increased likelihood of developing Open Angle Glaucoma include age (we are more at risk as we get older), a family history of glaucoma, and high intraocular pressure.

Normal Tension Glaucoma
In Normal Tension Glaucoma the optic nerve is damaged even though intraocular pressure (IOP) is not particularly high. It is not yet understood why some people suffer optic nerve damage despite having apparently “normal” pressure levels. However, we do know that certain groups such as those with a family history of glaucoma (any type), people of Japanese ancestry, and those who have a history of migraine or heart disease are at a higher risk of developing this disease. It affects women more often than men.

Angle Closure Glaucoma
The trabecular meshwork is the site of fluid exit from the eye in the corner, or angle, of the anterior chamber. In Angle Closure Glaucoma (ACG) the trabecular meshwork is blocked by the peripheral iris coming forward and obliterating the angle. Fluid is obstructed from reaching the angle and pressure becomes high. There are various types of Angle Closure Glaucoma such as Intermittent, Chronic, and the sudden and severe Acute Angle Closure Glaucoma. People at a higher risk of developing ACG include those who are far-sighted, elderly, of Asian descent or who have a family history of this condition. There are also a number of types of Secondary Angle Closure Glaucoma where the angle is blocked as a result of other eye disease such as in poorly controlled diabetics, those who have had a central Retinal Vein Occlusion, or after types of complicated surgery.

Pigment Dispersion Syndrome
Pigment Dispersion Syndrome is the most common form of glaucoma in people under 40. This is another condition in which the trabecular meshwork, (the drainage gutter at the front of the eye), is unable to function properly. In Pigment Dispersion Syndrome (PDS) black pigment granules clog the meshwork, which prevents fluid from draining properly, and leads to a build-up of pressure inside the eye. The pigment layer on the back of the iris rubs against the structures behind it, thus releasing pigment particles into the eye. Genetics are associated with increased risk of developing PDS, as is nearsightedness. Men are 2 -3 times more likely to develop PDS.
**Pseudoexfoliation Syndrome**

In Pseudoexfoliation Syndrome (PXF) the trabecular meshwork, (the gutter which drains fluid away), becomes blocked by flaky, white material. It is estimated that PXF accounts for about 25% of glaucoma worldwide. It is found in every race and ethnic group, but is particularly common amongst people of Scandinavian descent.

**Paediatric Glaucoma**

Children do get glaucoma. In many cases the cause is genetic, but sometimes Paediatric Glaucoma can occur following cataract surgery or following trauma to the eye, or ocular inflammation.

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**Glaucoma the Focus of National Meeting**

Glaucoma was the main theme for the recent annual New Zealand Branch Meeting of the Royal Australian and New Zealand College of Ophthalmologists (RANZCO). The meeting was held in Auckland between the 4th and 7th of May at the Sky City Convention Centre. At this three day conference delegates listened to presentations by international glaucoma specialists as well as local glaucoma specialists.

This year the New Zealand Ophthalmic Nurses and the New Zealand Orthoptists held meetings concurrently with the RANZCO meeting at the same venue. At the Friday morning session professionals from all three groups met together to consider aspects of a multi-disciplinary approach to glaucoma management. Dr Ken Tarr addressed this large, combined group as chairman of Glaucoma NZ, detailing the work our organisation does to inform and educate people about glaucoma and to promote research.

This conference encapsulated several aspects of the battle to prevent sight loss due to glaucoma – clinical and scientific research, professionals working together to diagnose and manage glaucoma, and Glaucoma NZ working to raise the level of awareness about glaucoma.

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**Volunteer Needed**

Would you be interested in becoming a regular volunteer in the Glaucoma NZ office? If you are interested please telephone Heather Hyland on 373 8779 or email admin@glaucoma.org.nz

*Elizabeth and Christine, volunteers in the Glaucoma NZ office*
Punctal Occlusion
Maximising the Effectiveness of Your Eye Drops

Puncta are tiny openings in the eyelid through which not only tears, but also eye medication can drain away. For glaucoma patients punctal occlusion refers to temporarily blocking these openings to prevent eye drops from running away.

Punctal occlusion for efficient administration of eye drops is a simple procedure. As soon as you have placed a drop in your eye, close your eye, place your forefinger in the corner of your eye and press your finger gently against your nose. With the eye gently closed keep pressing for at least two minutes. This will help prevent drops from travelling down the tear duct into the nose, from where they would be absorbed into the bloodstream and could cause side effects. It also maximises the amount of medication getting into the eye by preventing wastage down the tear duct.

It is important that you press in exactly the right place to block tear drainage! Ask your ophthalmology team to check you are performing punctual occlusion correctly.

For patients with other eye conditions such as dry eye, punctal occlusion may refer to a treatment procedure in which an ophthalmologist blocks off these exits by means of plugs or by the application of heat or laser.

Gael takes London in Her Stride

Gael Wright has completed the London Marathon just a few days after arriving in the UK from New Zealand. Gael was Glaucoma NZ’s administrative manager until the end of February this year, and she made a huge contribution to this organisation. One of her many achievements was raising funds for Glaucoma NZ through sponsored marathons.

In her usual inimitable fashion, Gael was not going to let a little thing like jetlag get in the way when she reached London. Congratulations, Gael! All at Glaucoma NZ, including the many members you had dealings with over the years, wish you well.

Moving House?

Don’t forget to include Glaucoma NZ when you are doing your change of address cards. Remember, we have no way of knowing your new address if you don’t tell us!
Travelling with Glaucoma

Winter is approaching and you may be planning a cruise or a tropical holiday. Glaucoma needs to be managed, not cramped in your plans. Here are some tips for enjoying a smooth trip while still maintaining your all-important treatment.

It is imperative that you keep on taking your eye drops. Don’t get too worried about changes of time zones. Occasional variations in the timing of your drops won’t jeopardise your eye health, but skipping drops will.

It is wise to carry a brief summary letter from your ophthalmologist with you when you travel overseas. This provides evidence that the pharmaceuticals you are carrying are for an approved medical condition. The letter will also help if you lose your medications and need to replace them, or in the unlikely event of an eye emergency abroad.

Keep all your personal medication in your carry-on hand luggage in case your checked-in luggage goes astray. With most eye drugs it’s a good idea to take spare bottles with you. (See below for advice regarding carrying extra Xalatan, which is a bit different.)

Most eye drops travel well and no special precautions need to be made. Xalatan, however, does not tolerate long periods of heat or sunlight. It is recommended that Xalatan be refrigerated until the bottle is opened, and thereafter stored below 25 degrees Celsius and kept out of direct sunlight. This is quite easily achieved, for example by keeping the drops inside a padded toilet bag. Once you have opened the bottle refrigeration is not required, but the bottle should be discarded after being open for a month.

Xalatan users going on just a short holiday should just take their current bottle if there are enough drops left. If you’re travelling for close to a month, then it would be practical for you to take a new bottle only, as once opened that will last you for your trip. If travelling for longer than a month there are a couple of options. One is to see your doctor about temporarily changing to a different drop such as Travatan, which is similar, but more tolerant of heat. Another option is to take extra bottles in a cooler bag (don’t freeze them!) and then refrigerate when you get to your destination. Correctly packed cooler bags with an insulated ice pack have been shown to maintain 2 – 8 degrees Celsius on flights to Europe, in excess of 36 hours.

The relatively minor adjustments in air pressure encountered when flying are not relevant to glaucoma. As for sunny climes, glaucoma patients are no more vulnerable than others to ultraviolet light, but ophthalmologists generally recommend that everyone wears sunglasses when out in the sun.

So if you just keep on keeping on with your glaucoma treatment, the world is yours to see. Bon voyage!

Contact Us with Your Questions & Comments

Glaucoma New Zealand
Department of Ophthalmology
The University of Auckland
Private Bag 92019
Auckland 1, New Zealand

Telephone: 64 9 373 8779
Facsimile: 64 9 373 7947
www.glaucoma.org.nz
Email: info@glaucoma.org.nz
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Donations of $5.00 or more are tax deductible

☐ I am interested in becoming a volunteer for Glaucoma NZ
☐ I would like information on leaving a bequest for Glaucoma NZ

Forthcoming Meetings

May 27  Rotorua
        10am  Conference Room, Rotorua Soundshell, Lakefront

June 17  Gisborne
         10am  The Gisborne Hotel, Cnr Tyndall & Huxley Roads

July 8  Napier
        10am  Napier War Memorial Conference Centre

July 22  Whangarei
        10am  Cafler Suite, Forum North, Rust Avenue

August 12  Auckland
         10am  ICANZ Conference Centre, 27 -33 Ohinerau St, Greenlane

August 26  North Shore
          10am  Fairway Lodge, Argus Place, Glenfield

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