

You ask, We answer!

Frequently asked lifestyle questions from the members of our glaucoma support groups.



Does caffeine worsen glaucoma?
Can alcohol reduce eye pressure?
Will supplements or changing diet make a difference?

While there is insufficient evidence of specific foods that lower eye pressure, there are diet and lifestyle choices that will help glaucoma patients stay healthier.

Green Leafy Vegetables

Intake of green leafy vegetables has been shown to be associated with a 20-30% lower risk of glaucoma. Interestingly, for patients with visual field loss that was close to the central vision, the association was even stronger, being 40-50%.

Caffeine and Alcohol

Caffeine has been shown to affect eye pressure for some people as it can cause a several point rise in eye pressure that lasts for at least 90 minutes. However, whether that increase is of concern is best addressed between the patient and their eye doctor. One cup of coffee is unlikely to cause any harm, but if drinking large amounts of coffee, consider switching some of that consumption to decaffeinated. Another option is to discuss with your doctor whether you are a caffeine responder- that is, a person who shows a spike in eye pressure with caffeine ingestion. Alcohol consumption can lower eye pressure in the very short term, but

Eyelights insights:

FAQ's Answered	pg 1
FAQ's continued	pg 2
Lucas Story	pg 3
Volunteers	pg 4
Support Groups	pg 5
Saving Sight	pg 6
Support Groups 2021	pg 8

there is no data to suggest that drinking alcohol reduces the risk of developing glaucoma or prevents its progression. As with almost everything, moderation is a good idea.

Antioxidants

As oxidative stress is thought to be an important feature of glaucoma, there have been several studies examining the relationship between antioxidant intake and glaucoma. No relationship was found between antioxidant intakes, such as carotenoids, vitamin C, vitamin E, and the risk of developing glaucoma. However, there are other comprehensive studies that have shown a possible relationship between the consumption of foods rich in antioxidants, such as green leafy vegetables like kale and collards, and decreased glaucoma risk. In addition, consumption of dark chocolate has also been shown to improve damage to blood vessels, referred to as reversal of vascular endothelial dysfunction. More research needs to be done, however, to determine specific recommendations about antioxidants and glaucoma progression.

Supplements

There are some supplements that have been shown to benefit blood flow and decrease the oxidative stress of the optic nerve. Water-soluble vitamin B3 or niacin, also called nicotinamide or nicotinic acid, is essential to all living cells. Its derivatives are protective against reactive oxygen species - substances that cause cell damage and death. They show 'significant



improvement' in the visual function of glaucoma patients who received a daily high dose of 3 grams of nicotinamide for 12 weeks in addition to their regular treatment to reduce eye pressure.

Ginkgo biloba extract (GBE) has been tested in the treatment of various medical conditions, including glaucoma. Current evidence suggests that GBE increases ocular blood flow, improves retinal ganglion cell survival, and protects against oxidative stress.

Latest and newer treatment options for glaucoma.

There are several exciting developments in the area of glaucoma treatments.

The first area of progress is new and innovative ways to deliver medications to the eye. Presently, eye drops are the only method to deliver medications to the eye. New developments include small implants that release medications

slowly. This would free patients from the daily necessity of putting in eye drops and also abolish surface irritation and ocular side-effects. The implants are thought to last 3 to 6 months.

Other lines of investigations include new micro-stents. The iStent has recently been released in New Zealand, although it is not covered by some insurance companies. The iStent is implanted at the time of cataract surgery and, for some patients, can eliminate the need for eye drops. There are also other new surgical stents being developed. These will be powerful tools for ophthalmologists to add to their armamentarium to manage glaucoma.

Stem cells are under investigation for some eye conditions, there is still no substantial evidence that they have a role in glaucoma. However, this is an area of intensive research and the future is certainly bright.

Lucas Kiser's Journey living with Stickler Syndrome and Glaucoma

Lucas was born with Stickler Syndrome and Glaucoma. He is the only case in medical history born with both

Lucas lives in rural Taranaki, on a dairy farm with his dad Michael, mum Sonia and little brother Andre. Like many kids his age, Lucas loves anything with wheels and is mastering fast corners in his go-kart at the Kart Sport track in Taranaki, but unlike the other drivers on the track, Lucas was diagnosed with Stickler Syndrome, infantile glaucoma and severe myopia when he was four months old.

Stickler Syndrome is rare but not unheard of in New Zealand. Characterized by structural problems of the eye and unusual facial features, the biggest optical risk is usually retinal detachment. However, Lucas has an especially rare version of this recessive genetic disorder that includes glaucoma and is estimated to affect just 5%-10% of people with the condition.

"Lucas was very sensitive to light from birth and couldn't go outside without sunglasses" Sonia said.

"He was crying a lot as well, and when Lucas was about four months old we noticed Lucas's right eye appeared cloudy."

Sonia says at this point, they were referred to Greenlane Hospital in Auckland, where Lucas was diagnosed.

Michael and Sonia were told there would be many challenges in their son's future. But the first challenge to face would be the difficulty of explaining a complicated condition and treatment to Lucas. Finding the right words is even harder when your child is newly diagnosed with something rare, and very little is known about what to expect.

For example, Sonia and Michael soon learned about the effects

different prescribed glaucoma eye drops can have. "One drop Lucas was on changed him big time," she said. "He turned into an angry, sad, mad little boy who wouldn't sleep". After discussing this with their specialist, the prescription was changed and "we got our calm, fun, kind, loving Lucas back". Sonia suggests if you feel you are not right after changing eye drops, have the confidence to speak up and talk to your specialist.

Sonia began searching in earnest for a children's book to read to Lucas that could help inform, reassure and explain what was happening, not just for Lucas but also for family members, siblings, or even curious strangers. But she found little information available that reflected Lucas's situation, so she decided she would have to write it. And she did!



Lucas clocking up the kilometers on club day at the Kart Sport Summer Series in Taranaki.

Sonia's storybook is suitable to be read to children by parents, teachers and caregivers, giving them the language to talk with children about Stickler Syndrome, glaucoma and being unique in a positive and reassuring way.

Sonia is now on the hunt for a talented illustrator to work with her to see the book through to publication – If you are an illustrator looking for an exciting project and would like to help, please email your details to: info@glaucoma.org.nz.



Optometrists doing good in their local community

Rebecca Monteiro, pictured above from Specsavers in Pakuranga, spent a day in the GNZ office, where she shared valuable insight and helped us to catch up on some vital admin task. Great work, thank you, Rebecca.

A huge thanks to Annette Morgan from Grylls Keleher & Matthews, Kapiti Coast, who spoke on behalf of GNZ at the Raumati Probus Club. Annette was also interviewed by Beach FM for World Glaucoma Week.



We need some of your spare time

If you can spare a few hours and enjoy organising events, we need your skills to help us raise vital funds and ensure we can continue to improve and increase our education and awareness of glaucoma. Grab a few friends, come up with a fundraising idea and have some fun. We'd be delighted to have you on our team!

We also need:

- Volunteer eye health professionals to speak at local community meetings.
- Support group facilitators in Kapiti, Christchurch, Tauranga, Wellington and Hawkes Bay.

Whether you volunteer as a speaker, fundraiser or support group co-ordinator, your input makes a significant difference and is greatly appreciated. To find out more about how you can help us contact Pippa. p.martin@auckland.ac.nz

Thank you Mikie

We would like to gratefully acknowledge Mikie Watson, who recently resigned as the Christchurch support group facilitator. Mikie has generously donated her time and energy for the past few years, working alongside her co-facilitators to build a very successful support group.

Thank you so much Mikie, we appreciate all that you have done.

Eyedrop Aids

Using eye drops can be a challenge for many patients, young or old. AutoDrop[®] and AutoSqueeze[™] have been developed to make self-administration as simple as possible – helping to improve patient compliance and reducing reliance on others to help with this task.

Many patients who use eye drops have other conditions that affect their dexterity and ability to squeeze small eye drop bottles.

AutoDrop[®] and AutoSqueeze[™] are re-usable and provide a cost effective solution for simple eye drop application.



AutoDrop[®]



AutoSqueeze[™]

You can now purchase these from Glaucoma New Zealand through our website www.glaucoma.org.nz or phone 0800 452 826.

The Hamilton support group:

The Hamilton support group gives people in the Waikato with glaucoma an opportunity to come together, and share their experiences – it is also a great time to have a good chat, says Clara, the support group coordinator.

Clara Chan was diagnosed with glaucoma in 2019 after searching for answers to worrying facial pain. “I thought it was toothache when it started in 2018. Then I had increasing pain above my eye in my eyebrow. So next, I saw a neurosurgeon who found no cause for the pain. Then I suddenly found I had lost 80% of my sight from one eye, and it was finally diagnosed as glaucoma”. This was a very traumatic time for Clara, she had little knowledge of how to manage her glaucoma. She discovered Glaucoma NZ, became a member and started to attend the Hamilton support group.

However, when the COVID lockdowns started in 2020, the group needed a new volunteer coordinator, and Clara decided to take on the role. She was a bit nervous about taking it on, “I loved going to meetings and it was important for me when I was first diagnosed having somewhere I could go to get information and talk about having glaucoma. I did not want to see the meetings end, so I put my hand up”.

Since then, she’s been busy recruiting people in Hamilton with glaucoma and welcoming attendees of the support group. Clara has been working hard to promote the

meetings via Neighbourly, the Waikato Community News and placing flyer’s in optometrists waiting rooms. She wants to ensure anyone diagnosed with glaucoma in the Waikato is informed, supported and know they have somewhere to go for answers.

For Clara, the support group helped her feel less alone in her glaucoma journey. “I did not know anything about glaucoma, and I had no idea what I was facing or what I can and can’t do. It’s important to talk with people who can share their experience with you,” she says, “it is both reassuring and helpful”.

While the support group is a chance to be listened to and comforted, it’s also an opportunity to learn about new ways of managing glaucoma and maintaining vision. The group share advice and ideas with one another, like how to travel and manage glaucoma treatment or how to go about driving with glaucoma.

Being newly diagnosed with glaucoma can be an overwhelming and confusing experience, but with the support of those in a similar situation, it becomes easier.

Most of all, the support group is a source of friendship for all those involved. “The group always has a warm welcome for everybody”.



Clara Chan - Hamilton Support Group Volunteer Coordinator

Find your local support group

Our support groups started up again in February. They’re a fantastic opportunity to share your experience, build connections, and get support from people who understand. All dates and locations for the year can be found on page 8 or on our website www.glaucoma.org.nz or free phoning our helpline 0800 452 826.



Change of scenery saves a grandmother's sight from glaucoma



Poh-Ling Tan (left) with daughter Faith Smith and her granddaughter Harriet.

Professor Poh-Ling Tan knew she was at high risk of the degenerative eye disease glaucoma, but a sea change might have saved her sight.

Professor Tan, a now-retired academic, is urging everyone to get involved in a genetic study that has found 44 new genetic links for glaucoma.

There is a strong link to glaucoma in Professor Tan's family, with her grandmother losing her sight over the course of her life due to the condition, which was not managed correctly.

A number of her uncles had glaucoma, and her younger brother lost most of his sight as well.

Knowing this, she frequently went for check-ups but found that despite having high eye pressure – a sign of glaucoma risk – her ophthalmologist in Brisbane did not follow it up.

"It was only when I moved to the

Gold Coast, and at that point I changed my ophthalmologist, and immediately he said, "you've got optic nerve damage and you need to be put on drops immediately", she said.

"Knowing what I know now, I would have left sooner and got treatment, but I didn't know."

Fortunately Professor Tan's glaucoma was in the early stages, and she has had minimal degradation, but her experience highlights how little can still be done about the insidious disease.

The disease is the leading cause of blindness, with an estimated 75 million people affected by it.

It causes a slow, almost imperceptible degradation of eyesight, and is

cumulative. It has no cure, and all treatments merely halt the progress of the disease, they cannot reverse it.

An international research effort led by QIMR Berghofer Medical Research Institute and Harvard Medical School has identified 44 more genes with direct links to glaucoma, adding to the 83 already identified.

QIMR's Professor Stuart MacGregor said the finding would initially allow researchers to more accurately predict a person's personal risk of glaucoma.

"We're trying to use knowledge of the genetic information to improve detection and treatment of glaucoma," he said.

"Having a parent with glaucoma is considered to increase your risk of developing the disease yourself by up to tenfold.

"What these new genes do is let us get a more accurate risk prediction, so for an individual their genetic risk instead of being 10 times higher than the general population it could be 50 times higher, or it could be only two times higher."

Professor MacGregor said the next focus of research was to use the genetic markers to point the way to potential treatments, which could actually reverse or prevent it.

QIMR is running a genetic study for people with glaucoma, and has an open call out for volunteers to add their genetic samples to the collection.

Professor Tan also hopes for potential treatments in the future, not for her, but for her daughter

QIMR Test spots risk of eye disease before vision is lost

Researchers have developed a genetic test to catch the debilitating eye disease glaucoma before it starts to affect a person's vision. Scientists from QIMR Berghofer and Flinders University have identified 107 genes that increase someone's risk of developing glaucoma. They are now conducting studies to refine the test further.

Lead researcher Associate Professor Stuart MacGregor from QIMR said, "the test would significantly improve outcomes for patients, as glaucoma is progressive and incurable, meaning early detection was the key to managing the condition".

Faith, who has been living with glaucoma for a decade since she was diagnosed in her late 20s.

Fortunately her condition was caught much earlier than her mothers' and she has almost no degradation of sight.

"I'd urge everyone to come forward and take part in the QIMR study, that's why I did," Professor Tan said.

"Preventing [glaucoma] would be amazing, because I've got grandchildren, and if history is anything to go by, they have these markers too."

The research has been published in Nature Communications, an open access journal that publishes high-quality research from all areas of the natural sciences.

Professor Jamie Craig, clinical lead researcher and chair and academic head of the Department of Ophthalmology at Flinders University, said the study results offer hope for mass screening for glaucoma in the future.

"Early detection is paramount because existing treatments can't restore vision that has been lost, and late detection of glaucoma is a major risk factor for blindness," said Craig, who is also a consultant ophthalmologist.

"Glaucoma can arise at any age but most of those affected are in their 50's or older, so our ultimate aim is to be able to offer blood tests to people when they turn 50 so they can find out if they are at risk, and then hopefully act on it.

"In most cases, glaucoma can be treated easily using simple eye drops, but this test is likely to be helpful in identifying those who would benefit from more aggressive intervention such as surgery."

The study findings can be accessed on the Nature Genetics website. www.nature.com/ng/

By Stuart Layt - Kindly reprinted with permission from Fairfax Media and The Brisbane Times

Thank you!

Thanks to the following funders for their generosity:

Blue Sky Community Trust for funding a laptop for our Community Support & Education Officer



Thanks to all our members who have donated and the Freemasons Foundation, for funding towards our Education Project for one year to hire a Community Education and Support Coordinator.



Content in 'Eyelights' is intended to help readers understand glaucoma. Every effort is made to ensure the accuracy of this information. This information is not a substitute for the advice and recommendations of health professionals. Always consult a health professional prior to any decision regarding your eyes or other health concerns.

Support Group Dates for 2021

A special thank you to all our volunteers who run our support groups. Glaucoma NZ support groups are an opportunity to share your experience with like minded people who understand the challenges of living with glaucoma. Participants have described their groups as “a place to ask questions in a non-judgemental environment”. For any queries please contact us at info@glaucoma.org.nz or call us on **0800 452 826**.

Auckland North

Glenfield Community Centre,
Cnr Bentley Ave & Glenfield Rd

Sat, 17 April 10 - 11.30am
Sat, 15 May 10 - 11.30am
Sat, 19 June 10 - 11.30am
Sat, 17 July 10 - 11.30am
Sat, 21 Aug 10 - 11.30am
Sat, 18 Sept 10 - 11.30am
Sat, 16 Oct 10 - 11.30am
Sat, 20 Nov 10 - 11.30am

Auckland Central

Grey Lynn Community Centre,
510 Richmond Rd

Sat, 24 April 2 - 3.30pm
Sat, 29 May 2 - 3.30pm
Sat, 26 June 2 - 3.30pm
Sat, 31 July 2 - 3.30pm
Sat, 28 Aug 2 - 3.30pm
Sat, 25 Sep 2 - 3.30pm
Sat, 30 Oct 2 - 3.30pm
Sat, 27 Nov 2 - 3.30pm

Hamilton

Celebrating Age Centre,
30 Victoria Street, Hamilton

Sat, 17 April 10 - 11.30am
Sat, 29 May 10 - 11.30am
Sat, 26 June 10 - 11.30am
Sat, 31 July 10 - 11.30am
Sat, 28 Aug 10 - 11.30am
Sat, 25 Sep 10 - 11.30am
Sat, 30 Oct 10 - 11.30am
Sat, 27 Nov 10 - 11.30am

New Plymouth

Thur, 15 April 6.30 - 8.00pm Citizens Advice Bureau, 32 Leach Street
Sat, 15 May 10.00 - 11.30am Muffin Break, 11 Gill Street, Centre City Mall
Thur, 17 June 6.30 - 8.00pm Citizens Advice Bureau, 32 Leach Street
Sat, 17 July 10.00 - 11.30am Muffin Break, 11 Gill Street, Centre City Mall
Thur, 19 Aug 6.30 - 8.00pm Citizens Advice Bureau, 32 Leach Street
Sat, 18 Sep 10.00 - 11.30am Muffin Break, 11 Gill Street, Centre City Mall
Thur, 21 Oct 6.30 - 8.00pm Citizens Advice Bureau, 32 Leach Street
Sat, 20 Nov 10.00 - 11.30am Muffin Break, 11 Gill Street, Centre City Mall
Thur, 16 Dec 6.30 - 8.00pm Citizens Advice Bureau, 32 Leach Street

Timaru

Caroline Bay Lounge,
1 Virtue Avenue

Sat, 10 April 10 - 11.30am
Sat, 8 May 10 - 11.30am
Sat, 5 June 10 - 11.30am
Sat, 3 July 10 - 11.30am
Sat, 7 Aug 10 - 11.30am
Sat, 4 Sep 10 - 11.30am
Sat, 2 Oct 10 - 11.30am
Sat, 6 Nov 10 - 11.30am

Christchurch

Sat, 10 April 10 - 11.30am Mary Potter, 442 Durham St North, Christchurch
Sat, 8 May 10 - 11.30am Mary Potter, 442 Durham St North, Christchurch
Sat, 12 June 10 - 11.30am Mary Potter, 442 Durham St North, Christchurch
Sat, 10 July 10 - 11.30am Cafe Edge, Cnr Trafalgar St and Edgeware Rd, St Albans
Sat, 7 Aug 10 - 11.30am Mary Potter, 442 Durham St North, Christchurch
Sat, 11 Sep 10 - 11.30am Cafe Edge, Cnr Trafalgar St and Edgeware Rd, St Albans
Sat, 16 Oct 10 - 11.30am Mary Potter, 442 Durham St North, Christchurch
Sat, 20 Nov 10 - 11.30am Cafe Edge, Cnr Trafalgar St and Edgeware Rd, St Albans