



## Aussie rock star Kirk Pengilly to raise awareness

**Australia's Kirk Pengilly (from INXS), will leverage his fame to help increase awareness of glaucoma and encourage Australians to get their eyes tested, during World Glaucoma Week 2020, March 8-14.**

Kirk's own glaucoma experience is the driving force behind his new role as Glaucoma Australia Ambassador. Kirk shared his story on Channel 7's The Morning Show in November and encouraged Aussies not to 'turn a blind eye' when it comes to having regular eye checks.

In 1987, Kirk came within an inch of losing his sight because of glaucoma. Due to the severity of the

disease, he was fast-tracked to a pioneering Australian ophthalmologist who quickly treated his deteriorating sight and prevented further damage to his vision. Until that point he had no idea what glaucoma was.

*"When I got glaucoma it really hit home and I realised how important sight was to me – and, obviously, to everyone. It was a real wake-up call. As a result I'm certainly more aware of my eyes, my eye health and the importance of regular eye exams."*

Kirk Pengilly ●

## From the CEO



Happy New Year! I hope you have enjoyed a relaxing break over the holiday season and are feeling fresh and rejuvenated for the year ahead. For

those in fire affected areas, our thoughts and prayers go out to you at this difficult time.

2020 will be a huge year for Glaucoma Australia as we are committed to strengthening the support and value of our patient education. I am delighted to share that our Glaucoma Referral Pathway is now being strongly utilised by our eye health professionals nationally. Close to 400 people are currently joining our Patient Support Journey monthly which is great news as they can now access free support and resources at the earliest opportunity. Following World Glaucoma Week, we will be launching a new website which you will find easier to navigate. It will be designed to integrate with the phone and email assistance provided by our orthoptist educators and will include new and updated resources written by our highly valued Ophthalmology, Optometry and Pharmacy Committee members.

We are thrilled that His Excellency General the Honourable David Hurley AC DSC (Retd) has agreed to be our Patron. Along with our new Ambassador Kirk Pengilly (INXS), their high profiles will go a long way to extend our risk awareness campaign reach into the general public. Mr Hurley will be a guest at our upcoming Patient Symposium in Adelaide on the 13th of March and Mr Pengilly will be strongly present in our 'Don't be blindsided' campaign which promotes eye health awareness and early detection.

**Annie Gibbins**  
CEO

## In the News

### Meet our new Patron, the Governor-General



Glaucoma Australia is thrilled to announce our new patron, the Governor-General, His Excellency General the Honourable David Hurley AC DSC (Retd).

The Governor-General will serve as Patron of Glaucoma Australia, promoting the organisation, its mission to eliminate glaucoma blindness, and the patient centred services it provides.

"I am delighted to become Patron of Glaucoma Australia" said the Governor-General.

"Since being founded in 1988, Glaucoma Australia has increased community awareness of glaucoma, supported patients and their families and funded critical research. This is an important mission and their impact has been significant.

"The hard work of those involved, their supporters and the researchers they fund and collaborate with has directly helped hundreds of thousands of Australians. I look forward to being involved and working with them as Patron."

"The sense of sight is generally considered the most valued sense of all," says Glaucoma Australia President A/Prof Simon Skalicky. "His Excellency's patronage will greatly assist Glaucoma Australia by extending our reach and capacity to eliminate glaucoma-related blindness among Australians." ●

## Feature

### Medication-Induced Glaucoma



Written by Dr Shweta Kaushik

This article looks at those medications that we take for other health conditions and their role in elevating the eye pressure, which may eventually lead to glaucoma. Sometimes the eye pressure can decrease once these medications are ceased, without any development of glaucoma. Most medications are safe in glaucoma, but there are some to be mindful of. If you have any concerns about the medications you are taking or about to start, then speak to your ophthalmologist.

There are many different types of glaucoma. However, most glaucomas can be divided into two categories: open-angle glaucoma where the drain of the eye is wide open, and closed-angle glaucoma where the drain of the eye is partially or fully obstructed. Whether the drain of the eye is open or closed is important when we are examining medication-induced glaucoma. This is because a medication can

make your open-angle glaucoma worse or your angle-closure glaucoma worse. However, certain medications can create closed-angle glaucoma regardless of the type of glaucoma you have. These reactions are called 'idiosyncratic' or random individual reactions.

Your eye doctor can let you know if your type of glaucoma fits into either of these groups. Brand names are not used in this document, so look for the 'generic' name for the medication. One medication may have several brand names. You will find that most medications have the generic name or active ingredient listed on the box or information leaflet.

Your eye health professional is the best point of contact if you have been prescribed these medications. They can work with you and your prescribing doctor to check if you are at risk, and if the medication can be continued or should be ceased.

## Open-Angle Glaucoma

### Steroids

Corticosteroids, or steroids, can raise eye pressure, especially in those persons who have open-angle glaucoma, first-degree relatives of those with open-angle glaucoma, elderly and young (<6 years) persons, those with type 1 diabetes and those with high myopia (short-sightedness). All types of steroid formulation such as oral, inhaled or topical (drops or cream) can raise the eye pressure. A study that looked at nasal spray formulation of steroids demonstrated that there was not an increased risk of elevated eye pressure with this method of taking steroids.

Most patients will not have symptoms from elevated eye pressure associated with steroid use. If glaucoma develops, it may be years or decades before the vision loss becomes detectable by the patient. Very occasionally if the pressure is high enough to damage the cornea (front window of the eye), the patient may get blurring of the vision, but this is rare. Corticosteroids are a useful medication in the treatment of many conditions, even life-threatening ones. We recommend that patients who are taking this medication, and have risk factors for glaucoma (see above) obtain a check-up from an eye health professional before and during treatment with steroids. The eye professional can assess them during treatment with steroids to ensure any elevated eye pressure can be detected early and treated. If elevated pressure occurs, treatment with pressure-lowering medications, laser or surgery as well as reduction in dose or duration of steroid use, changing formulation or cessation of steroids are all possible therapeutic options.

### Anti-Cancer Medication

Docetaxel and paclitaxel are medications used to treat some cancers. They can elevate the eye pressure.

Oncologists (cancer doctors) always send patients to an eye health care professional for an eye check after they commence a wide variety of cancer medications. If you are worried or haven't been for a check-up, speak to your general practitioner, oncologist or local optometrist.

### Anaesthetic agents

Some medications used in general anaesthesia such as succinylcholine and ketamine can raise eye pressure, though it is usually temporary and does not cause permanent harm.

### Closed-Angle Glaucoma

A large number of medications can precipitate closed-angle glaucoma. Closed-angle glaucoma causes the drain in the eye to block completely resulting in very high eye pressures, blurry vision, haloes, pain, red eye and nausea and vomiting. This can result in loss of vision and can be difficult to treat. Treatment usually involves laser, topical and oral medications, but may involve surgery as well.

People with narrow angles are most at risk. This can be checked by your eye health professional. Those at risk of having narrow angles include: race (Asians, Inuit Eskimos and Hispanics), older age, female gender, hyperopia (far-sightedness or wearing plus glasses that magnify objects) and a family history of closed-angle glaucoma. Certain medications (sulpha-drugs) can produce rare idiosyncratic closed-angle glaucoma even in persons without narrow angles or a predisposition to narrow angles.

People with narrow angles may already be treated with a laser peripheral iridotomy. In this case they are at very low risk of developing sudden closed-angle glaucoma with the medications described below and can in most cases safely take these medications. If in doubt, it is best to check with an eye health care professional. However, people with undiagnosed narrow angles are most at risk of developing sudden closed-angle glaucoma. It is important for all adults to get an eye health check-up every 2 years.

**If you have any concerns about the medications you are taking or about to start, then speak to your ophthalmologist.**

### Direct and Indirect Adrenergic Agents

Direct and indirect adrenergic medications include: phenylephrine, epinephrine, ephedrine, dipivefrin, naphazoline, salbutamol, albuterol, terbutaline, amphetamines, monoamine-oxidase inhibitors (tranylcypromine, phenelzine), apraclonidine drops and cocaine.

These medications or drugs can dilate the pupil and this can cause the iris (coloured part of the eye) to seal against the lens blocking orderly flow of fluid inside the eye. The fluid can't get from the back to the front of the eye. This causes pressure behind the coloured part of the eye to rise narrowing the front of the eye and drain until it closes, which leads to the signs and symptoms such as pain and haloes, described above.

### Anti-Cholinergic Agents

Anti-cholinergic drugs include: tropicamide, atropine, cyclopentolate, ipratropium bromide. Tricyclic and tetracyclic anti-depressants such

as amitriptyline, imipramine, and clomipramine are weak anti-cholinergics. Selective serotonin reuptake inhibitor anti-depressants such as venlafaxine, paroxetine, citalopram, escitalopram and fluvoxamine also have weak anti-cholinergic effects. Some anti-psychotics have even weaker anti-cholinergic effects and for closed angle glaucoma to result, usually need to be taken with another anti-cholinergic. These medications include trifluoperazine, perphenazine and fluphenazine.

These medications also cause closed angle glaucoma by the method described above. Drops such as tropicamide, atropine and cyclopentolate cause the iris to swell also which also can help to create an environment where closed-angle glaucoma is more likely to occur.

### Botox injections

Botulinum Toxin Injections can cause pupil dilation when injected close to the eye. This can precipitate closed-angle glaucoma in the aforementioned way, in high-risk individuals (those with narrow angles).

### Cholinergic agents

Pilocarpine is an eye pressure lowering drop that has been around for some time. It is still frequently prescribed by ophthalmologists. Pilocarpine constricts the pupil. But it also brings the lens and iris forward which can block the drain of the eye, causing closed-angle glaucoma.

### Sulfa-Drugs

Such drugs include: trimethoprim-sulfamethoxazole, topiramate, acetazolamide, hydrochlorothiazide and cotrimoxazole.

These medications don't dilate the pupil but they still cause closed-angle glaucoma. They

swell the structures in the back of the eye. These swollen structures push the lens and iris forward, thereby blocking the drain of the eye (closing the angle). Topiramate is a medication used for migraines and weight loss. There have been many case reports of closed-angle glaucoma from this medication.

These medications usually cause closed angle glaucoma in both eyes of children and adults. Typically, the glaucoma occurs within the first 3 weeks of use and treatment includes stopping the medication. Significant vision loss has been reported in some patients who develop sudden closed-angle glaucoma with these medications.

#### Anti-histamines

Promethazine has been shown to have weak anti-cholinergic activity and can cause closed-angle glaucoma by causing swelling of the structures in the back of the eye.

#### Gastrointestinal Medications

Cimetidine and ranitidine can also raise the eye pressure through their weak anticholinergic effects.

#### Anti-Parkinson medication

Such drugs include cabergoline, which can induce the structures at the back of the eye to swell up and thereby result in closed-angle glaucoma.

Trihexyphenidyl and orphenadrine have also been known to cause closed-angle glaucoma.

#### Cardiac agents

Disopyramide is used for heart rhythm abnormalities, and can cause closed-angle glaucoma.

#### Anticoagulants

Blood thinners may cause a big bleed in the back of the eye (vitreous haemorrhage, subretinal haemorrhage or suprachoroidal haemorrhage). The blood pushes the structures in the front of the eye forward, blocking the drain of the eye. However, this occurrence is quite rare and it is not recommended that you stop the anti-coagulant due to this rare risk. Overtreatment with anticoagulants, wet age-related macular degeneration and a small eye are risk factors for this rare condition.

Once the bleed occurs, treatment is difficult and requires stopping the anticoagulant to protect the fellow eye.

#### Anaesthetic Agents

Some of the aforementioned agents may be used during surgery which can precipitate closed-angle glaucoma. The glaucoma is often detected when the patient awakes after general anaesthesia. ●

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2. Razeghinejad MR, Myers JS, Katz LJ. Iatrogenic glaucoma secondary to medications. *Am J Med* 2011; 124:20-25
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4. Khurana AK, Khurana B, Khurana AK. Drug-induced angle-closure glaucoma. *J Curr Glaucoma Pract.* 2012; 6(1):6-8

## Update

# Public funding for standalone MIGS procedures a step closer

Written by Myles Hume

Government advisors have recommended minimally invasive glaucoma surgery (MIGS) should be publicly funded as a standalone procedure, following extensive campaigning from Australia's ophthalmic community.

Almost a year since rejecting the proposal, the Medicare Services Advisory Committee (MSAC) now believes there is sufficient evidence for standalone trabecular micro-bypass glaucoma surgery (TB MBGS) – a form of MIGS – to have its own Medicare Benefits Schedule (MBS) item number.

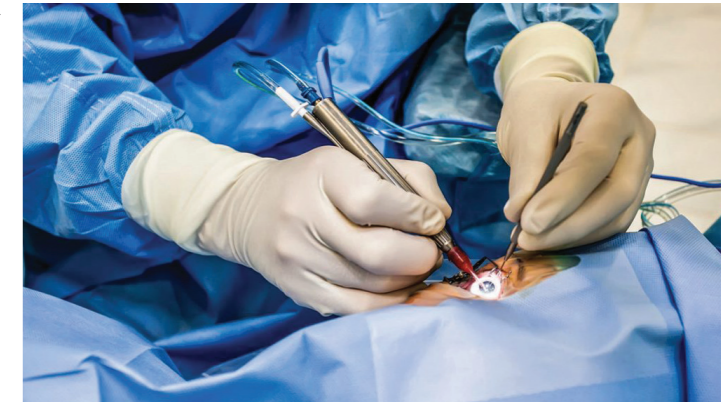
It follows years of advocacy led by the Australian Society of Ophthalmologists (ASO) after a 2017 change in item number regulations threatened funding for all MIGS procedures.

The issue was partially addressed in October last year when the Federal Government approved a new item number but limited the procedure's availability to patients who were simultaneously undergoing cataract surgery.

The ASO was encouraged by the development and continued to campaign. It believed the move created two classes of glaucoma patients because those who did not need cataract surgery, or had already had the operation, would not be eligible.

According to MSAC, it originally did not support public funding of standalone MIGS due to unclear eligibility criteria and high 'leakage risk' to other populations, poor comparative safety data, poor comparative efficacy, and unsatisfactory economic assessment.

However, at a meeting in August, MSAC agreed to support MIGS in isolation after considering the strength of available evidence for comparative safety, clinical effectiveness and cost-effectiveness presented by the ASO. Its



application was supported by the Australia and New Zealand Glaucoma Society, treatment companies such as Glaukos, health economists Thema Consulting and Glaucoma Australia.

ASO vice-president and Sydney glaucoma surgeon Dr Ashish Agar, from the Prince of Wales Hospital, told Insight the organisation was encouraged by the recommendation, which would now go before Federal Health Minister Mr Greg Hunt.

"It's a very positive development. We thank the minister for his support as this would not have been forthcoming for a long time without his intervention, and we can now reassure our patients that there is a solution in sight" Agar said.

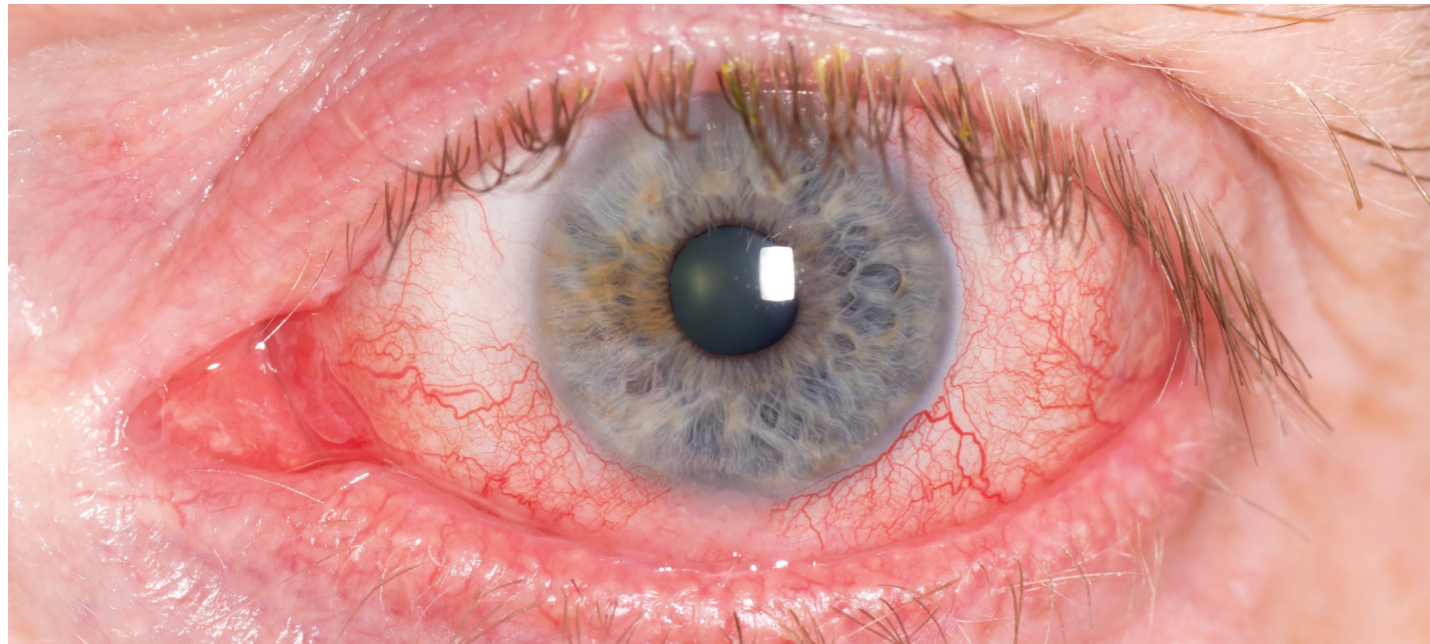
"This is about giving the patients much better access, and it's an important step on the way to restoring that equity."

In its decision, MSAC compared MIGS alongside trabeculectomy and concluded that although MIGS was slightly less effective, it was safer and may allow some patients to delay or avoid trabeculectomy.

Other analysis shows that MIGS generally costs less than trabeculectomy, and is projected to save the MBS approximately \$500,000 per annum by the fourth year of listing. ●

This article is republished courtesy [Insightnews.com.au](https://www.insightnews.com.au)

## How to manage dry eye



Written by Dr Jonathon Ng

Government advisors have recommended dry eye is a common problem in the community with many causes for its development. Symptoms often develop once there are enough of the multiple factors that worsen dry eye. People with glaucoma are at higher risk of dry eye because some glaucoma treatments can worsen the ocular surface and the tendency to dry eye. It is important that when dry eye occurs in someone with glaucoma, that all factors contributing to the development of dry eye are addressed as this may be enough to improve symptoms without needing to change glaucoma treatment.

Symptoms of dry eye include eyes that feel irritable or even like there is something in the eye. Itchiness is another symptom often wrongly blamed on allergy. These symptoms occur because dryness irritates and stimulates nerves on the surface of the eye. Dryness of the surface tissues of the eye can also make them redder with more obvious blood vessels on the white of the eye. The vision can also be blurred because dryness causes surface irregularities and disrupts focussing. Sometimes people with

dry eye can also have a watery eye because of a reflex increase in tear production in response to dryness.

Treating dry eye involves ensuring adequate tear volume, maximising the health and function of the tears, optimising tear flow, and where possible removing or at least minimising any factors that may be worsening the tendency to dry eye.

### Lid cleaning

The best way to ensure optimal tear health and function is by controlling any blepharitis through ongoing, regular lid cleaning. Blepharitis is a common condition which results in blockage of the Meibomian glands in the eyelids and can be worsened by the prostaglandin analogue class of glaucoma drops. These glands are important because they produce oils that reduce tear evaporation. Regular lid cleaning comprising of a hot compress, lid massage and eyelid margin cleaning helps keeps the Meibomian glands healthy and working. Other treatments that can supplement lid cleaning include dietary omega-3 fatty acids and oral doxycycline.

### Artificial tear drops

Artificial tear drops act to moisturise the ocular surface and supplement natural tear production. Whilst generally safe to use, the main precaution is to restrict excessive use of preparations with preservatives as preservatives can cause ocular surface toxicity and worsen dry eye symptoms. To reduce drainage of tears from the eyes, punctal plugs to block the tear ducts can be beneficial in reducing the frequency of lubricating drops required to keep the eye comfortable.

### Eyelid position correction

The surface of the eye can also become dry because tears are not evenly distributed across the ocular surface. This can occur because of lumps on the surface of the eye such as pingueculums or pterygia. In order for tears to be spread evenly over the surface it is important that the eyelids are in good contact with surface. Eyelids which are floppy, lax or turned out (ectropion) can also worsen the tendency to dry eye. Whilst artificial tear drops can help, sometimes surgical correction of the eyelid position may be required.

### Glaucoma treatment adjustment

If symptoms of dry eye continue to cause problems despite addressing the other causes of dry eye described previously, then changes to glaucoma treatment may be necessary.

Eye drop treatments that are preservative free or when more than one medication is required then preparations that combine two medications in one bottle, can help reduce the tendency for dry eye. If suitable, laser trabeculoplasty can reduce or eliminate the need for glaucoma eye drops. Ultimately surgery may be necessary if symptoms are severe enough and worsened by glaucoma drops but this is not without risk. ●

## Research grant recipients announced



Dr. George Kong



Prof. Jamie Craig

Glaucoma Australia commemorated World Sight Day in October with the announcement of the inaugural recipients of our new Glaucoma Research Grants Program. We congratulate Dr George Kong, Royal Victorian Eye and Ear Hospital and Professor Jamie Craig, Flinders University.

The aim of Dr Kong's research in the next five years is to continue to harness technology commonly found in Australian households that could lead to earlier detection of glaucoma progression compared to standard clinic visits.

Professor Craig's proposed work forms the basis for an ongoing vision over the next 5 years to ensure that population level screening for glaucoma is achieved cost-effectively with the ultimate goal of improving prediction.

Research funds would not be possible without the generous donations supporting the William A Quinlivan Glaucoma Australia Research and Scholarship Fund; a significant legacy of Marcus James Quinlivan OAM; who was a long-time friend and supporter of Glaucoma Australia.

The next round of grants for research commencing in 2021 is expected to open on 1 June 2020. Contributions to this research are welcome by making a tax deductible donation to Glaucoma Australia today. Please call 1800 500 880 ●

## Education

### Upcoming Events

You're invited to attend the following events during World Glaucoma Week 2020

#### Congenital Glaucoma Support Group

Families affected by Congenital Glaucoma are invited to join us for a relaxed social gathering.

**Date:** Tuesday 10 March

**Time:** 10am – 1pm

**Location:** Beaumont People, Level 59,  
259 George Street, Sydney NSW

#### Glaucoma Patient Symposium

**Date:** Friday 13 March

**Time:** 11am - 12.30pm

**Location:** Flinders Centre of Innovation in Cancer (FCIC), Flinders Drive, Bedford Park, Adelaide.

Entry via Flinders Medical Centre.

Paid Parking Available

**Special Guest:** His Excellency General the Honourable David Hurley AC DSC (Retd).

**Guest Speakers:** Professor Jamie Craig plus a panel of experts from the ophthalmology, optometry, pharmacy and orthoptic industries.

#### Queensland Eye Institute (QEI)

**Date:** Thursday 12 March

**Time:**

**Location:** QEI, 140 Melbourne Street,  
South Brisbane QLD 4141

To book visit [www.glaucoma.org.au/events](http://www.glaucoma.org.au/events)  
or call 1800 500 880

These events are free but you are welcome to leave a gold coin donation.

## Our Supporters

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Many thanks to our wonderful supporters you are greatly appreciated.



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### In Memorium

We acknowledge with gratitude gifts, from family and friends, in loving memory of:

Mr Giuseppe Skrezenek

Mr John Manfield

### Bequests

The estate of the Late Joan Mackenzie

The estate of the Late Maurice Cassidy

### Giving HOPE

A gift in your will can help eliminate glaucoma blindness.

If you would like more information about leaving a gift in your will please contact Glaucoma Australia on 02 9411 7722 or email [ceo@glaucoma.org.au](mailto:ceo@glaucoma.org.au)

## How can we help?

Glaucoma Australia offers FREE education and support to people living with glaucoma.

If you or someone you care for has been diagnosed with glaucoma we recommend you join our community to access free resources, guidance and support.

#### Join our community online

[www.glaucoma.org.au/registration](http://www.glaucoma.org.au/registration)

#### Call our free support line

1800 500 880

#### Contact details

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W: [www.glaucoma.org.au](http://www.glaucoma.org.au)

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**Glaucoma Australia**

Saving sight

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## Your Questions Answered

# Q&A

## with Sapna Nand

Sapna is an Orthoptist Educator with over 10 years' experience working with glaucoma patients. If you have a question for Sapna you can call our free support line 1800 500 880.

### Q Does flying effect glaucoma?

**A** Flying is generally safe for someone with glaucoma. Following glaucoma-related eye surgeries or laser treatments flying doesn't pose any further risk to your eye health. The only potential issue with flying would be, where a procedure has resulted in the retention of air or gas in your eye. So make sure to ask your ophthalmologist, if you have any specific concerns.

### Q Can my sleep position affect my glaucoma?

**A** There is no specific best sleeping position for people with glaucoma. But we recommend that you avoid sleeping face-down or any other positions that could put physical pressure or strain on your eyes.

### Q Is glaucoma related to sleep apnoea?

**A** Studies have demonstrated, a higher rate of glaucoma in patients with sleep apnoea. We recommend patients with sleep apnoea have an eye-test to screen for glaucoma at least every two years.

### Q Do I have to discard eye drops after the expiry date?

**A** Once you've opened your eye drops, they usually only last for 28 days, and it's important not to use them past then, as after 28 days, the solution inside the bottle can turn nasty and be harmful to your eyes. I recommend writing the date on the bottle when you open them, and also making a note on your calendar 28 days later to throw that bottle out. Make sure you have a repeat script and a new bottle of eye drops handy before that 28 days is up so you won't miss a single dose of your glaucoma medication. Your eyes will thank you.

### Q Why is it important to use my eye drops at the same time each day?

**A** Your eye pressure fluctuates throughout the day. And for people with glaucoma, these fluctuations can be harmful to your optic nerves. Using your drops the same time every day helps to control that pressure over 24 hours. So try and get into a set

routine for when you apply your eye drops. It could be when you brush your teeth, when you have your coffee, anything that will get the routine of applying those drops done. Because it's important. If you ever forget your drops, just apply them when you remember. It's better to take them late than not at all.

### Q Can I drive safely with glaucoma?

**A** The answer is yes, as long as your visual acuity and field test result meet the standards required for driving, you'll still be able to hold on to your driving licence. The visual acuity with both eyes open must be 6/12 or better, and your field test with both eyes open must have at least 120 degrees of visual field free of glaucoma defects. But, if you haven't passed these tests, a restrictive licence may still be possible. Licencing requirements vary between states. Your optometrist or ophthalmologist will be to further advise you.