

SumikoAt61

# Save your sight: 7 things to know about your ageing eyes

Don't wait till it's too late, warn doctors. If something feels off, get your eyes checked.



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If you know that doing something is bad for you, why would you wilfully do it anyway?

I often ask myself this when I'm in the middle of yet another doom-scrolling session on my phone.

In February, I averaged four hours and 28 minutes a day on my phone. That's about a quarter of my waking hours.

Relentless scrolling has left me with not only a stiff neck but also dry, tired eyes. It's not helped by how I spend another six hours on average staring at the computer on weekdays, and the same amount of time watching TV on weekends.

You would think I'd be doing my vision a favour by cutting back on screen time, and yet, here I am, still scrolling.

Like most people, I fear losing my vision as I age, not least because I've always had poor eyesight.

I developed myopia in primary school and am what is known as a high myope, with short-sightedness around the -7.00 diopters range (or 700 degrees, as we used to say).

I had Lasik surgery when I was 43 to correct my sight. I still remember the awe, relief and happiness I felt when I could make out the leaves on a distant tree and see birds sitting on a faraway roof.

I chose monovision Lasik where my left eye was corrected for distance vision (I can see far) and my right eye under-corrected (some myopia retained). This combination has let me function without needing far or near glasses.

In the last few years, however, both my far and near vision have deteriorated. My ophthalmologist says I have the beginnings of cataracts on both eyes.

When I was in my early 50s, I had posterior vitreous detachment (PVD), first in my right eye, then my left.

PVD is an age-related condition where the vitreous gel inside the eye liquifies, shrinks and separates from the retina. In my case, it was foreshadowed by an increase in floaters and arcs of flashing light.

PVD is common and usually not sight-threatening, but for some, the vitreous gel pulling away can cause tears or holes in the retina, or even a retinal detachment, which is an emergency situation. Over the years, I've had two tears and a hole patched up by a laser procedure.

I continue to see floaters, especially in bright light. A recent eye check also found that my cataracts have worsened and I suffer from quite serious dry eyes.

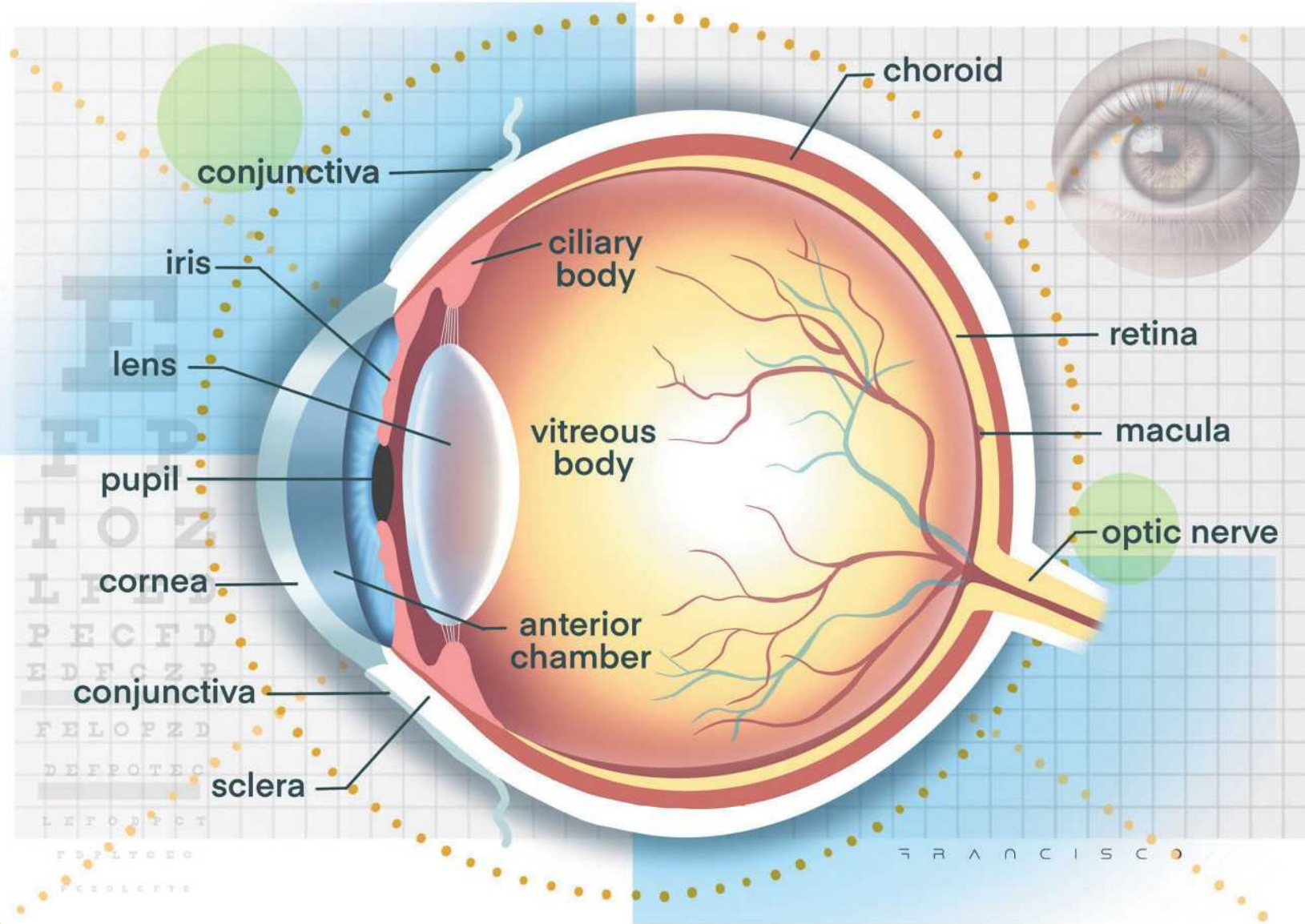
To learn more about what to expect as my eyes age, I spoke to three ophthalmologists:

- Professor Gemmy Cheung, head and senior consultant at the medical retina department at the Singapore National Eye Centre (SNEC).
- Associate Professor Shamira Perera, head and senior consultant at SNEC's glaucoma department.
- Adjunct Associate Professor Loon Seng Chee, head and senior consultant at the department of ophthalmology at Alexandra Hospital, and head of glaucoma at National University Hospital.

Here are seven things I learnt which you might find useful:

## 1 EYES ALSO AGE

Like every other body part, the eyes change with age, and some of these changes can affect vision. At the front of the eye, the



sclera – the white of the eye – may no longer be pristine white.

"It's like a 50-year-old car that originally was described as white but is now off-white," says Prof Loon. This discolouration can be more pronounced in people exposed to sun, wind and dust, such as motorcyclists, he adds.

The cornea, the clear outer layer of the eye, may develop a white or grayish ring called arcus senilis, which means "ring of ageing" in Latin. "If you're in your 50s, 60s and beyond, you wouldn't be too perturbed by this, but if you get it much younger, that's due to high cholesterol and you should get a blood test," says Prof Loon.

Functional changes also occur with age. The lacrimal glands, which produce tears, slow down over time. This leads to dry eyes, which can cause a gritty, burning sensation.

One of the most well-known age-related changes is presbyopia, the gradual loss of near vision that starts in one's 40s. This happens because the lens in the eye thickens and becomes less flexible, making it harder to focus on nearby objects.

Deeper inside the eye, the vitreous gel liquefies and shrinks, increasing the likelihood of floaters and PVD, which is what I've experienced.

Then, at the back of the eye, the retina, macula and optic nerve also undergo gradual degeneration which can lead to blurry vision, reduced contrast sensitivity and an increased risk of diseases such as age-related macular degeneration and glaucoma.

## 2 EVERYONE WILL GET CATARACTS

With age, proteins in the lens break down and form cloudy areas. This is a cataract, and results in unclear vision, sensitivity to glare, double vision or trouble seeing at night.

"It's a normal part of ageing," says Prof Perera. "Some might get it later, some earlier, but if you live long enough everyone will get cataracts." The SNEC performs more than 20,000 cataract operations every year.

While there is no way to prevent cataracts, certain conditions and behaviour can accelerate it, doctors say.

Exposure to excessive ultraviolet (UV) light can speed up cataract formation, says Prof Loon. The sun is the biggest source of UV light, and he is a strong advocate of wearing glasses that offer UV protection.

Cataracts can grow faster in diabetics with chronically high

blood sugar, says Prof Perera, so it is important to control diabetes.

## 3 BEWARE OF GLAUCOMA, THE 'SILENT THIEF OF SIGHT'

One of the most concerning eye diseases is glaucoma, which usually happens when high eye (intraocular) pressure damages the fibres of the optic nerve, which connects the eye to the brain. This can lead to vision loss and, potentially, irreversible blindness.

Vision loss starts in the periphery of the visual field and slowly impacts the central vision. Glaucoma is often very advanced before visual loss is noted, which is why it is often called the "silent thief of vision".

Glaucoma can be classified into primary and secondary.

Risk factors for primary glaucoma include race, older age, a family history of glaucoma, and high myopia. Secondary glaucoma occurs as a result of another condition that causes or contributes to an increase in the eye pressure, such as an eye injury, certain drugs such as steroids, and uncontrolled diabetes.

Early detection can slow or halt glaucoma and prevent blindness. Eye drops are used to lower eye pressure and prevent further damage, and laser or surgical treatment is also an option.

Prof Perera says glaucoma affects about 3 per cent of the Singapore population above the age of 50, and about 10 per cent of those aged 70 and above.

"Glaucoma generally runs in families, so if you've got a first-degree relative with it – father, mother, brother, sister, son or daughter – then you've got a six times risk of getting it," says Prof Perera. Those with a family history should go for regular checks, especially from around the age of 40, he adds.

(This is all bad news for me, by the way. My mother has glaucoma and is on lifelong eye drops, and while Lasik corrected my myopia by reshaping my cornea, it did not change the eye's underlying structure and the risks associated with high myopia.)

Prof Perera adds that a person might not realise they have lost peripheral vision. "You won't be able to tell. The brain is very clever and it will make things up, and it will do a good job of trying to fill in what's not there based on whatever information it has," he says.

"We see a lot of patients who have got to the very end stage of glaucoma and they still think everything's okay, then when the last few nerve fibres die off, they



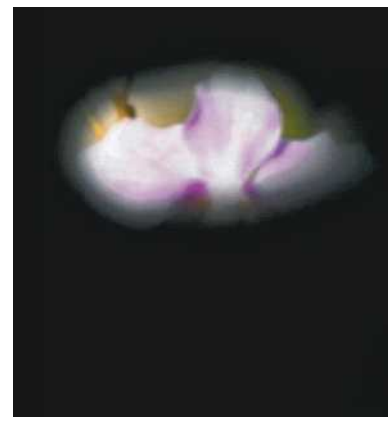
Normal vision.



Vision with age-related macular degeneration.



Vision with early glaucoma.



Vision with late-stage glaucoma.

PHOTOS: SINGAPORE NATIONAL EYE CENTRE

lose everything."

## 4 AGE-RELATED MACULAR DEGENERATION

Another vision-threatening condition is age-related macular degeneration (AMD), a progressive disease that damages the macula, which is the part of the retina responsible for sharp central vision.

Tasks such as reading and driving become very difficult, although AMD does not cause total blindness like glaucoma can.

Prof Cheung says early AMD affects about 10 per cent of the adult population, though the prevalence rate is higher in older groups. Advanced AMD affects about 0.5 per cent to 3 per cent of the adult population.

She says family history increases the chances of getting AMD, and smoking raises the risk by over three times. Evidence for other causes is not clear.

Symptoms include sudden distortion or wavy vision. "A straight surface, such as a door frame or the edge of a table, should be nice and straight," she says. "If there is a bit of waviness, that's the time to get it checked out."

Treatment to slow down AMD includes a certain formulation of supplements. If detected early, there is a 95 per cent chance of stabilising the disease, she adds, though the vision loss is not reversible.

## 5 A HEALTHY LIFESTYLE HELPS EYES, TOO

Often-cited health advice to not smoke, eat nutritiously and exercise regularly applies to eye health, too, say doctors.

"Then, on top of that, we can talk about supplements and other more aggressive intervention if needed," says Prof Cheung.

Nutrients that are said to be good for vision can be found naturally.

Antioxidants lutein and zeaxanthin are found in leafy greens and goji berries, for example. Omega-3 fatty acids can be found in fatty fish like salmon and sardines, as well as nuts and seeds. Carrots are a good source of vitamin A, and citrus fruits provide vitamin C.

Says Prof Cheung: "Fish intake at least once to twice a week, particularly oily fish, has been shown to be beneficial to many parts of the eye, to the retina for sure, and also for dry eyes."

Prof Perera adds that it is better to have a healthy, balanced diet throughout one's life than to scramble to take huge doses of antioxidants when older.

He adds that exercising will stave off diabetes – which can lead to its own set of eye problems – and has been shown to reduce eye pressure in glaucoma.

As for social media videos touting exercises such as rolling your eyeballs or cupping your hands over the eyes to relieve strain, he says "there are a lot of myths about what can be done".

Far more beneficial is to take regular breaks from reading or looking at the computer, and to blink, he says.

Prof Cheung adds that there are two sets of eye muscles – one outside the eyeball, which tells the eyeball when to move, and another inside the eye called the ciliary body. The ciliary body is what helps the eyes focus far and near, and gets tired when overworked.

Looking in the far distance after a period of close work such as reading is a good way to relax that muscle, "but maybe people don't realise that this is a form of exercising the eye", she says.

## 6 DON'T STARE AT YOUR PHONE TOO MUCH

Looking excessively at a mobile phone strains your eyes and can cause blurry vision because the eye muscles are working overtime, says Prof Loon.

"Many people sit so close to their screen, they can practically lick the screen," he notes.

The eye's ability to focus between near and far objects – or what is known as accommodation – is affected with prolonged near work. "These muscles will get tired if you keep them wound up so tight," he says.

When people look at screens, they also blink much less – five to seven blinks per minute compared with the normal blink rate of 15 to 20, Prof Loon says.

Blinking helps distribute tears and prevents dryness that leaves eyes irritated and uncomfortable.

Eye doctors advocate the 20-20-20 rule to prevent digital eye strain – every 20 minutes, look 20 feet (6m) away for 20 seconds.

Prof Loon adds that when you stare at a bright screen in a dark room, the pupils will have to constantly adjust between the screen's brightness and the surrounding darkness, leading to strain.

"If you're using a very high quality mobile phone with a bright light, it's almost like you're shining a light at your eyes continuously for hours, which you wouldn't do under normal circumstances, but that's how we are treating our eyes," he says.

Books, on the other hand, don't emit light – though you need proper light to read them – and one is unlikely to read for the length of time one can spend on the phone.

## 7 GET YOUR EYES CHECKED

All three doctors can't emphasise enough the importance of seeking medical help early if you experience visual symptoms.

Prof Perera says he has seen patients who ignore changes to their vision thinking "it's just ageing", and suffer the consequence of a late diagnosis.

Prof Cheung adds that people might think there is nothing wrong with their eyes if they can see far and near. But eye conditions can show up in symptoms such as general blurring, patchy vision, distorted lines and shapes, or floaters. "Treatment outcome is often much better when it's detected early," she says.

Prof Loon points out that unlike other body parts that age, vision can be restored to what it once was in one's youth, such as for those with cataracts.

"Medicine has made great strides in ophthalmology and we don't lose a lot of eyes, especially in Singapore," he says. "We can help a lot of people, all the way from the front to the back of the eye."

If there's one takeaway from my interviews, it's that while I can't stop my eyes from ageing, I should give them the best possible chance to be healthy.

For me, regular check-ups for glaucoma are a must, and I'm seriously trying to limit my screen time so I don't strain my eyes unnecessarily.

Instead of checking my phone first thing when I wake up, I've worked up to a stage where I look at it only 30 minutes later. My next target is to stop scrolling 30 minutes before I go to bed.

It's a small start, but if I want to preserve my vision to serve me for the rest of my life, surely I must make the effort?

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