

Personalised 'eyevatar' ray tracing technology
unlocking HD vision

Saturday, December 2, 2023

Commercial in confidence

Campaign overview

Situation

- PersonalEYES engaged VIVA! Communications to co-ordinate a NSW-specific consumer news media campaign to announce the launch of next-generation ray-tracing laser eye technology & supporting findings from new Australian research published in the Journal of Cataract & Refractive Surgery
- Dr Rick Wolfe had coordinated his own news media launch of the ray-tracing laser eye technology on October 30, 2023, which effectively “stole the thunder” from A/Prof Bala’s media launch
- With that in mind, we strategically chose to launch our news media campaign as soon as possible post- Dr Wolfe’s campaign, in order to capitalise on A/Prof Bala’s publication of his new research, & to maintain newsworthiness
- In consultation with The Saturday Telegraph & their request for a print & online news media exclusive, we launched our campaign on Saturday, December 2, 2023

Communications objectives

- To generate patient/consumer awareness of, & interest in, the novel ray-tracing laser eye technology, including its ability to generate a personalised, multidimensional, ‘eyevatar’, enabling surgeons to move beyond 20/20 vision
- To drive inbound enquiries to relevant personalEYES channels for further information
- To position the PersonalEYES brand & the PersonalEYES Director, A/Prof Bala, as the leading eye specialists in NSW & the ACT

Communications strategy

- Coordinate an integrated, ‘earned’ consumer news media campaign leveraging off A/Prof Bala’s AUS clinical paper, comprising spokesperson engagement, asset development & media outreach

Campaign overview



Target audience

- Spectacle & contact lens wearers living in NSW & aged between 20 – 45 yrs
 - Age range more likely to be able to afford the treatment
 - NSW & ACT residents located near personalEYES clinics

Implementation:

- Identify, secure & profile x 2 leading Australian KOLS & x 4 patients with ray-tracing laser technology treatment experience, to act as consumer campaign spokespeople
- Develop a suite of consumer news media materials comprising:
 - Key message document
 - Media alert
 - Media release
 - About the eyes, common eye conditions, new research findings & next-generation, ray-tracing laser eye technology backgrounder
 - Expert profiles x 2
 - Patient case studies x 4
 - Video News Release (VNR) featuring x 1 expert, x 2 patients, & animations + overlay
 - Pieces to camera featuring x 1 expert, & x 2 patients
 - Eye related animations x 7
 - Talent, vision disorders, & personalEYES technology related imagery x 38

Campaign overview

Implementation cont'd

- Construct a consumer digital media kit housing all consumer news media campaign collateral, for ease of journalist access: personaleyesmediakit.com.au
- Construct a comprehensive NSW, ACT, & industry media list targeting relevant media personnel
- Pre-pitch stories to key consumer news media outlets, issuing x 1 media alert prior to launch, & x 1 media release on launch day
- Coordinate a NSW & ACT consumer news media launch on Saturday, December 2, 2023
- Organise interviews with campaign spokespeople, upon media request, working with all participating experts & relevant personalEYES spokespeople
- Produce a comprehensive summary of campaign outcomes

Campaign overview

Consumer news media launch challenges

- Dr Rick Wolfe stealing A/Prof Bala's thunder by coordinating his own news media announcement of the ray-tracing laser eye technology on October 30, 2023
- A/Prof Bala liaising with & being interviewed by The Saturday Telegraph in early December 2023, which subsequently required us to reformulate our news media launch strategy due to The Saturday Telegraph requesting a print media story exclusive
- Securing NSW & ACT-based patient spokespeople, mainly due to misunderstanding of campaign expectations, time involved – esp. ACT nominated talent who were largely unwilling, or unavailable to participate in launch which compromise the opportunity to secure a 'newsworthy' TV story in the ACT
- Minimal campaign preparation time – very short turn-around (2 weeks to develop materials)
- Launching on a Saturday with small, skeleton staff in newsrooms & limited weekend media monitoring performed by media monitoring service provider
- Extensive social media calendar, content & supporting tiles developed for PersonalEYES, but not fully leveraged, subsequently reducing overall campaign key message penetration
- Competing breaking news stories on launch day, incl. the COVID wave, the Australian nuclear energy debate & pro-Palestine protests in Australian capital cities

Campaign overview



Testimonial

Hi Kirsten & Mikaela,

Thanks for sending this article through yesterday. It's a fascinating story.

We have put it online: <https://mivision.com.au/2023/12/personalised-eyevatar-to-unlock-hd-vision/>.

Regards,

Melanie (Mivision Editor)

Consumer news media outcomes overview



Our PersonaleYES NSW & ACT ray-tracing laser eye technology campaign generated a substantial **15,632,570** media impressions / 'opportunities to see' between **Saturday, December 2 – Friday, December 8, 2023**

4-of-our-6 talent offered for interview, were interviewed, incl. A/Prof Chandra Bala, Sydney; Chris, 42, Sydney; Maddie, 21, Sydney; & Jodie, 31, Sydney

	Industry *	TV	Print	Online	Radio	Social media	Total
Number of stories	3	3 (incl previews)	1	13	16	29	65
Impressions	283,200	4,004,143	611,000	7,641,439	1,073,502	2,061,186	15,674,470

Consumer news media outcomes overview



KEY MESSAGES	KEY MESSAGE PENETRATION
More than seven million Australian adults living with the common eye conditions, myopia and astigmatism, are set to benefit from the launch of next-generation, customised laser eye technology	100%
Next-generation, ray-tracing laser eye technology generates a personalised, multidimensional, 3D eye model, or 'eyevatar'	87%
Personalised 'eyevatar' ray tracing technology enables eye surgeons to move beyond 20/20 vision, and in most cases, to achieve high-definition, or HD-vision	83%
Associate Professor Chandra Bala's research reveals 90 per cent of those who underwent ray-tracing laser eye technology treatment achieved 20/15 vision (better than 20/20) vision	74%
TOTAL KEY MESSAGE PENETRATION	86%

100% positive sentiment across all media stories published/aired

***Key message penetration percentages exclude specific PersonalEYES social media messages that VIVA! did not develop**

Consumer news media collateral

Media alert

MEDIA ALERT

EMBARGOED: SATURDAY, DECEMBER 2, 2023

Personalised 'eyevatar' ray-tracing technology set to unlock HD-vision

90% of adult patients achieving '20/15' vision or more with next-generation laser eye treatment: new AUS research

More than seven million Aussie adults living with the common eye conditions, myopia (shortsightedness) and astigmatism (eye imperfection),¹ are set to benefit from the launch of next-generation, 'customised' laser eye technology designed to achieve high-definition (HD) vision, this Saturday, December 2, 2023.

Unveiling of the personalised, laser eye correction treatment employing NASA Hubble Space telescope eye tracking technology this Saturday, has been spearheaded by new Australian-first research revealing 90 per cent of treated patients achieved 20/15 vision (better than 20/20 vision), while 50 per cent of patients achieved 20/12.5 vision.²

According to new research author, Ophthalmologist, and Director of PersonalEYES, Associate Professor Chandra Bala, Sydney, who has performed the advanced, ray-tracing laser eye treatment on more than 1,000 patients to date, this novel, diagnostic technology is poised to improve the diagnosis, treatment and outcomes for people living with myopia and astigmatism.

"The technology generates a personalised, multidimensional, 3D model of the eye, or 'eyevatar', enabling eye surgeons to **move beyond 20/20 vision, and in most cases, to achieve HD-vision.**"²

ABOUT MYOPIA & ASTIGMATISM

- Myopia, or short-sightedness, is a common eye condition that makes distant objects appear blurry.³ Currently 6.3 million Australians are living with myopia.¹
- Astigmatism is an eye imperfection involving blurry or distorted⁴ vision due to the front surface of the eye or the lens being misshapen, causing the light to bend differently as it enters the eye.⁴
- Myopia and astigmatism share similar symptoms, including squinting to see clearly, eye strain, blurry vision, headaches, and in cases of astigmatism, having trouble seeing at night.³⁻⁴



Media alert cont'd...

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- Myopia and astigmatism share similar symptoms, including squinting to see clearly, eye strain, blurry vision, headaches, and in cases of astigmatism, having trouble seeing at night.^{3,4}

To learn more about the personalised 'eyevatar' ray-tracing technology unlocking HD vision, tee up an interview with a spokesperson/s below.

AVAILABLE FOR INTERVIEW

EXPERTS

A/Prof Chandra Bala	New research author, Ophthalmologist & Director, PersonalEYES, SYDNEY
Clinical A/Prof Andrew White	Clinician Scientist Ophthalmologist & Glaucoma Specialist, PersonalEYES, CANBERRA

PATIENTS

Chris, 42	Accounting firm MD, soccer player & father-to-two who wrestled with blurry vision for almost two decades, SYDNEY
Madeleine, 21	Aspiring flight attendant who struggled with poor vision for more than a decade, SYDNEY
Albert, 32	Entrepreneur and business owner who lived with myopia & astigmatism for more than 16 years, SYDNEY
Erin, 32	Recruiter who sought corrective treatment for her myopia & astigmatism spurred by a car accident, SYDNEY
Jodie 31	HR specialist & yoga & pilates enthusiast who struggled with deteriorating eyesight for almost a decade, SYDNEY

DIGITAL MEDIA KIT personaleyesmediakit.com.au



MEDIA CONTACTS

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- 3 National Eye Institute. Nearsightedness (Myopia). <https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/nearsightedness-myopia> (2023).
- 4 National Eye Institute. Astigmatism. <https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/astigmatism> (2019).

Media release

Media release

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**90% of adult patients achieving '20/15' vision or more
with next-generation laser eye treatment: NEW AUS RESEARCH**

More than seven million Aussie adults living with the common eye conditions, myopia (shortsightedness) and astigmatism (eye imperfection)¹ are set to benefit from today's launch of next-generation, customised laser eye technology.

According to new Australian research published in the [Journal of Cataract & Refractive Surgery](#), next-generation, ray-tracing guided laser eye technology generates a personalised, multidimensional, 3D eye model, or 'eyevatar', enabling eye surgeons to [move beyond 20/20 vision*](#), and in most cases, to achieve high-definition, or HD-vision.²

New research author, Ophthalmologist, and Director of PersonalEYES, Associate Professor Chandra Bala, Sydney – **Australia's first to have performed the procedure (more than 1,000 ray-tracing laser eye procedures to date)** – said the novel technology is poised to improve the diagnosis, treatment and outcomes for people living with myopia and astigmatism.

"For the first time, we are now offering '[personalised](#)' laser eye correction, employing [NASA Hubble Space telescope](#) [which measures the size of the nearest, transiting, earth-sized planet] [eye tracking technology](#), that allows the laser to move faster than the eye, simultaneously detecting and accommodating for any eye movements like never before.

"[This advanced diagnostic technology directs 500 beams of light at the eye, measuring and collecting data from the reflected light with microscopic precision of 1/100,000 of a millimetre, to generate a personalised treatment plan,](#)"² said A/Prof Bala.

Media release cont'd...

Media release

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"For the first time, we are now offering 'personalised' laser eye correction, employing NASA Hubble Space telescope [which measures the size of the nearest, transiting, earth-sized planet] eye tracking technology, that allows the laser to move faster than the eye, simultaneously detecting and accommodating for any eye movements like never before.

"This advanced diagnostic technology directs 500 beams of light at the eye, measuring and collecting data from the reflected light with microscopic precision of 1/100,000 of a millimetre, to generate a personalised treatment plan,"² said A/Prof Bala.

"This technology provides the most accurate method currently available for measuring and modelling the eye."

"Ten years ago, these calculations would have taken 24 hours. Now they take just four minutes," A/Prof Bala said.

"Given each set of eyes is unique, treatment should not be a 'one-size-fits-all' approach."

A/Prof Bala's independent research performed on 200 adult patients (400 eyes) living with myopia and astigmatism, from his everyday clinical practice, revealed 90 per cent of those who underwent ray-tracing laser eye technology treatment achieved 20/15 vision (better than 20/20 vision): 50 per cent of patients achieved 20/12.5 vision; while 8 per cent of patients achieved 20/10 vision. Moreover, 98 per cent of patients reported feeling 'completely satisfied' with the treatment, with between 38-40 per cent of those who underwent ray-tracing guided laser eye technology treatment seeing 1 line or more on an eye chart better than what they ever did with glasses.²

*20/20 vision represents average eyesight, whereby a person can see an object clearly from 20 feet (7 metres) away. Better than 20/20 vision, for instance, 20/15 vision, means a person can view an object from 20 feet away, with the same clarity as someone 15 feet (4.5 metres) away from the same object.²

Clinician Scientist Ophthalmologist, Westmead Hospital, and Glaucoma Specialist, PersonalEYES, Clinical A/Prof Andrew White, Canberra, maintains there is a broad community misconception that 20/20 vision is 'perfect vision'. It is rather, 'average' eyesight that 90 per cent of patients who undergo standard LASIK Surgery for myopia can achieve.³

"In order to go beyond 20/20 vision, treatment must be customised to the eye. This Australian-first, next-generation, ray-tracing laser eye technology is making this possible.²

"The technology offers Australian adults living with common eye conditions, the opportunity to throw away their glasses and contact lenses for good, and to potentially, save money in the long-term,"² A/Prof White said.

Accounting firm Managing Director, finance teacher, soccer player, and father-to-two, Chris, 42, Sydney, lived with myopia and astigmatism for almost 20 years. Despite the many inconveniences he faced with wearing, frequently misplacing, losing and/or breaking his prescription glasses and having to get them fixed, and his eyes drying up with contact lenses, for almost two decades Chris failed to seek a permanent solution.

Chris wrestled with the upkeep, maintenance, and inconvenience of frequently losing, and/or forgetting where he placed his prescription glasses and sunglasses, and with his vision turning foggy while wearing contact lenses.

"Initially, glasses corrected my eyesight, but their novelty soon wore off. When I got contact lenses about a year later because I couldn't wear glasses while playing soccer, I found that after a while on the field, I'd get tired, and my vision would turn foggy.

"Eventually, I didn't want to rely on glasses or contact lenses any longer. I wanted the freedom to enjoy my outdoorsy, active lifestyle, without having to think about wearing my glasses or changing my contact lenses," said Chris.

Chris subsequently underwent laser eye surgery that permanently changed the shape of his cornea, effectively correcting his myopia and astigmatism.

Today, Chris is urging Australian adults to visit an eyecare professional for an eye health assessment without delay, and to determine the most effective treatment options best tailored to them.

To find out whether you are suitable for ray-tracing guided laser eye technology, or to learn more, head to www.personaleyes.com.au.

About PersonalEYES

PersonalEYES – The Vision Specialists – is Australia's first company to offer ray-tracing guided laser eye technology treatment. With 10 clinics in Sydney, regional New South Wales and Canberra, PersonalEYES offer comprehensive, accessible, and personalised eye treatments, including a 'lifetime of vision' patient care program.

About myopia and astigmatism

Myopia, also known as short-sightedness, is a common eye condition that makes distant objects appear blurry. In myopic eyes, light fails to focus on the retina, and instead, focuses on the front of the retina, which may be due to enlarged eyes or thick lenses.⁴ Currently, 6.3 million Australians are living with myopia.¹

Astigmatism is a common eye condition in which vision is blurry or distorted.⁵ Astigmatism occurs when the front surface of the eye (cornea) or the lens, is misshapen, causing the light to bend differently as it enters the eye.⁵ Currently, 1.4 million Australians are living with astigmatism.¹

Myopia and astigmatism share similar symptoms, including squinting to see clearly, eye strain, blurry vision, headaches, and in cases of astigmatism, having trouble seeing at night.^{4,5}

About refractive error

Refractive error is responsible for half of all eye conditions in Australia, including myopia and astigmatism.⁶ Refractive error occurs when light passing through the eye does not focus properly, causing blurred vision, headaches, sore or tired eyes, and trouble focusing when reading, or looking at a computer.⁶ Myopia usually presents pre-teens, and often becomes worse over time, suggesting early treatment is beneficial for preventing advanced myopia.⁷

ends#

AVAILABLE FOR INTERVIEW

EXPERTS

A/Prof Chandra Bala	New ray-tracing guided laser eye technology research author, Ophthalmologist & Director, PersonalEYES, SYDNEY
Clinical A/Prof Andrew White	Clinician Scientist Ophthalmologist & Glaucoma Specialist, PersonalEYES, CANBERRA

AUSTRALIANS LIVING WITH MYOPIA & ASTIGMATISM

Chris, 42	Accounting firm MD, soccer player & father-to-two who wrestled with blurry vision for almost two decades, SYDNEY
Albert, 32	Entrepreneur & business owner who lived with myopia & astigmatism for more than a decade, SYDNEY

Maddie, 21	Aspiring flight attendant who struggled with poor vision for more than a decade, SYDNEY
Erin, 32	Recruiter who sought corrective treatment for her myopia & astigmatism spurred by a car accident, SYDNEY

Jodie, 31	HR specialist & yoga & pilates enthusiast who struggled with deteriorating eyesight for almost a decade, SYDNEY
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- 1 Australian Institute of Health and Welfare (AIHW). Eye Health. <https://www.aihw.gov.au/reports/eye-health/eye-health/contents/new> (2023).
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- 3 Association of Schools and Colleges of Optometry. Can you have Better than 20/20 vision. <https://optometriceducation.org/2020/01/02/can-you-have-better-than-20-20-vision/> (2020).
- 4 National Eye Institute. Nearsightedness (Myopia). <https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/nearsightedness-myopia> (2023).
- 5 National Eye Institute. Astigmatism <https://www.nei.nih.gov/learn-about-eye-health/eye-conditions-and-diseases/astigmatism> (2019).
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Backgrounder

CONSUMER BACKGROUNDER

EMBARGOED: SATURDAY, DECEMBER 2, 2023

About the eyes, common eye conditions, new research findings & next-generation, ray-tracing laser eye technology

About the eyes and 20/20 vision

- In a healthy eye, light passes through the front of the eye and lens, allowing light to focus on the retina (the back of the eye) at a single point, creating an image.¹
- An abnormal eye shape and size (and its components) can hinder its ability to focus light correctly.¹⁻⁵
- People with 20/20 vision have average eyesight and can clearly see an object from 20 feet (7 metres) away.²
- Better than 20/20 vision, for example 20/15 vision, means a person can view an object from 20 feet away, with the same clarity as someone who is 15 feet (4.5 metres) away from the same object.²

Common eye conditions



NORMAL VISION

MYOPIA

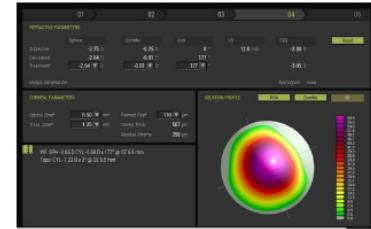
ASTIGMATISM

Myopia

- Myopia, also known as 'short' or 'near' sightedness, is a common eye condition that makes distant objects appear blurry.³
- In myopic eyes, light fails to focus on the retina, and instead, focuses in front of the retina, which may be due to an enlarged eye, or thick lenses.³
- Other symptoms of myopia include squinting to see clearly, eye strain, and headaches.³
- 6.3 million Australians are currently living with myopia.⁴

Astigmatism

- Astigmatism is another common eye condition in which vision is blurry or distorted.⁵
- Astigmatism occurs when the front surface of the eye (cornea), or the lens, is misshapen, causing light to bend differently as it enters the eye.⁵
- Similarly, to myopia, symptoms of astigmatism include blurry vision, eye strain, headaches, as well as trouble seeing at night.⁵
- 1.4 million Australians are currently living with astigmatism.⁴



Corrective eye treatments

- Myopia and astigmatism can be corrected by regularly wearing glasses or contact lenses, although this is not a permanent solution.²⁻⁵
- Both eye conditions can be treated through Laser-Assisted In-situ Keratomileusis (LASIK) eye surgery, which permanently corrects the eye, by altering the shape of the front of the eye.⁶

Impact on quality of life

- According to the [2022 Vision Index report](#), three in four Australians reported vision was their most important sense.⁷
- Clear eyesight is essential for all aspects of life: education, in the workplace, and performing daily activities, such as driving and shopping.⁷
- Blurry eye vision leads to eye strain and having to squint to see more clearly, which can also cause tiredness and headaches.²⁻⁶
- Despite being able to correct some eye conditions, glasses are not a permanent solution, and can pose several inconveniences to wearers, including:
 - Distortion of peripheral vision;
 - Can be easily lost, broken, or forgotten;
 - Obstructed vision due to rain or fog on the lenses; and
 - Ill-fitted frames, which can cause pressure on the nose and ears.
- Contact lenses are also impermanent, and can:
 - Be uncomfortable to wear;
 - Get lodged in the eye socket if not worn properly; and
 - Cause eye irritation.
- More permanent eye treatments, including LASIK, remove the inconvenience of wearing glasses and contact lenses, and general complications associated with blurry vision.⁷

Backgrounder cont'd...

About LASIK

- A popular option for corrective eye surgery, LASIK is considered a rapid, pain-free procedure that takes approximately 15 minutes to correct both eyes, and a few days to heal.⁸⁻⁹
- The procedure is bladeless and suture-less, and involves a cool ultraviolet (UV) laser, which can minimise patient discomfort.⁹
- LASIK reshapes the cornea – the thick, clear, front layer of the eye – with the aim of focusing light accurately onto the retina, without the need for glasses or contact lenses.⁸⁻⁹
- The LASIK technique involves gently lifting a flap in the outermost layer of the eye, allowing the laser to sculpt the eye. The flap is carefully repositioned, and immediately starts to heal.⁸⁻⁹



About next-generation, ray-tracing laser eye technology

- Ray-tracing laser eye technology is a next-generation guided laser eye technology offering patient-customised laser eye treatment.¹⁰
- The technology is a diagnostic tool, providing the most accurate method for measuring and modelling the eye, allowing eye surgeons to accurately pinpoint aberrations (abnormalities) to the **precision of 1/100,000 of a millimetre**.¹⁰
- Next-generation, ray-tracing laser eye technology generates a personalised '**eyevatar**', tailored to a person's eye, measuring the eye to microscopic precision, and combining this data to create a **multidimensional model of the eye**.¹⁰
- Previous eye modelling methods generalised all aspects of the eye to a single component. However, the '**eyevatar**' can capture **multiple components of the eye**, making it more realistic.¹⁰
- Standard LASIK procedures comfortably achieve 20/20 vision but, **the goal of advancing modern laser treatment is to go beyond 20/20 capabilities**.^{8,10}



New research findings

- An Australian retrospective study independently performed by PersonalEYES involving 200 adult patients (400 eyes) living with myopia and astigmatism in everyday clinical practice, was published in the *Journal of Cataract & Refractive Surgery* in November 2023.
- In this study, Ophthalmologist and Director of PersonalEYES, **Associate Professor Chandra Bala, Sydney**, demonstrated next-generation, ray-tracing laser eye technology achieved 20/15 vision (better than 20/20) in 90 per cent of patients; 20/12.5 vision in 50 per cent of patients; and 20/10 vision in 8 per cent of patients.¹⁰
- A/Prof Bala found 98 per cent of patients were completely satisfied with the treatment, with 25 per cent of patients receiving treatment seeing one line on an eye chart better than they did with glasses.¹⁰

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A/Prof Bala's research paper

1140

Open

ARTICLE

Ray-tracing-guided myopic LASIK: real-world clinical outcomes

George He, BMedSci, MD, Chandra Bala, PhD, BSc(Med), MBBS, FRANZCO

Downloaded from www.jcrs.org/doi/10.1097/JCRS.0000000000001286 on 10/23/2023 3:00:00 AM**Purpose:** To assess effectiveness of individualized ray-trace-based laser *in situ* keratomileusis (LASIK) for correction of myopia in everyday clinical practice.**Setting:** Single-site private practice.**Design:** Retrospective nonrandomized unmasked chart review.**Methods:** Consecutive, myopic eyes (range -8.25 D) with astigmatism 0 to -4.25 D treated with ray-trace-based LASIK were included. Patients underwent wavefront, tomography, and biometry assessment using the InnovEyes Sighthmap diagnostic device. The ray-trace based algorithm (InnovEyes algorithm) then generated an individualized 3D eye model and posterior corneal tomography, axial length, and anterior chamber depth. Using this optical model, or an "eyebat," the wavefront is calculated. Any difference between the measured eye wavefront and the eyebat-calculated wavefront is adjusted at the anterior surface of the crystalline lens such that the wavefront of the eyebat model approaches the measured whole-eye wavefront. Thus the light path/wavefront is modeled from the front corneal surface to the fovea. The model's anterior tomography can then be virtually treated to determine the change in angle of incidence at the cornea, which achieves the best possible postoperative wavefront.**Conclusions:** Ray-trace based LASIK was safe and effective for correction of myopia with and without astigmatism. Approximately, half the eyes achieved $20/12.5$ UDVA and 8% achieved $20/10$. There was no clinically significant increase in total whole eye HOAs.**Results:** The procedure was performed on 400 eyes (200 patients). Mean preoperative manifest refraction spherical equivalentwas -3.39 ± 1.58 D (right eye -3.84 ± 1.63 D, left eye -3.98 ± 1.75 D). At month 3, uncorrected distance visual acuity (UDVA) was $>20/20$ in all eyes, $>20/16$ in 89% (right eye 90%, left eye 89%), $>20/12$ in 51% (54% right eye, 47% left eye), and $>20/10$ in 8% (right eye 8%; left eye 0%) of eyes respectively. UDVA was within 1 line of preoperative corrected distance visual acuity in 98% of eyes (right eye 98.5%; left eye 99%) and 3% of eyes (right eye 3%; left eye 3%) gained 1 line improvement. There was a statistically but not clinically significant increase in total HOAs (right eye 0.06 ± 0.13 μm ; left eye 0.057 ± 0.125 μm ; $P < .001$). The spherical aberration decreased (right eye -0.047 ± 0.095 μm , $P < .001$; left eye -0.05 ± 0.091 μm , $P < .001$).**Conclusion:** Ray-trace based LASIK was safe and effective for correction of myopia with and without astigmatism. Approximately, half the eyes achieved $20/12.5$ UDVA and 8% achieved $20/10$. There was no clinically significant increase in total whole eye HOAs.**Results:** The procedure was performed on 400 eyes (200 patients). Mean preoperative manifest refraction spherical equivalent

Laser ablation profiles are the most important element of laser refractive surgery. In 1998, Munnerlyn and colleagues published their method of calculating the ablation profile based on the thin-lens formula.¹ Their technique assumed that the eye was made of a single refractive element from which a thin lens was to be removed. This was mathematically convenient and successful and led to the popularization of the Munnerlyn formula. The ablation profile, however, led to excessive flattening of the central cornea, which caused an increase in spherical aberration (by $0.3 \mu\text{m}/\text{D}$).

The next major advances were in wavefront-guided and topography-guided treatments.^{4,5} These still did not account for multiple refractive elements. Posterior to the cornea, all eyes were considered the same. The wavefront-guided treatment measured the wavefront aberrations and attempted to correct it; however, the applied ablation was not as effective as it was hoped. Its use was recommended for eyes with HOAs above 0.3 to 0.4 root mean square (RMS), where induced HOAs were lower than preoperative HOAs. However, 83% of eyes in the study had <0.3 RMS.¹ The topography-guided treatment increased peripheral energy to increase the amount of

peripheral ablation.³ Mathematically, both strategies were very complex; however, at their core, the authors highlighted in their publications that their equation could be reduced to the thin-lens equation, and they assumed that the eye was composed of a single refractive element and all other aspects such as anterior chamber depth, lens profile, and axial lengths were the same for all eyes. Furthermore, the preoperative aberrations of the patients were not considered.

The potential advantage of this methodology is that the model accounts for multiple refractive elements which may or may not be aligned, namely the cornea and the crystalline lens surfaces. The model also individualizes the treatment such that 2 eyes may have the same spectacle refraction, but can have potentially different eyevatars and ablation profiles. In addition, the ray-trace treatment has been modulated to account for laser efficiency, corneal biomechanics, and healing after myopic LASIK surgery.

This study presents the largest cohort of eyes to have been treated using ray-trace-based LASIK in a real-world private practice setting. Functional end points in addition to the effects of InnovEyes on postoperative higher-order aberrations (HOAs) are presented.

METHODS

A retrospective chart review of consecutive adult patients undergoing ray-trace-based LASIK surgery for myopia was undertaken at a single center in Sydney, Australia, between February 2022 and December 2022. This study was conducted in accordance with the National Statement on Ethical Conduct in Human Research (2007) and the CPMP/ICH Note of Guidance on Good

Submitted: February 21, 2023 | Final revision submitted: July 29, 2023 | Accepted: August 6, 2023

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OPTICAL RAY-TRACING LASIK: 3-MONTH CLINICAL OUTCOMES

1141

achieving 20/20 and 65% 20/16 or better and 34% 20/15 or better.⁵⁻⁷

The recurring theme in the ablation profiles mentioned above is the removal of a thin lens from the cornea of varying complexity to affect the focus of light. However, removal of a thin lens is not the goal of laser refractive surgery but the technique. Theoretically, the purpose of laser refractive surgery may be rephrased as the ablation of the cornea by such an amount as to change the angle of incidence of a ray of light at the cornea so that the rest of the eye may focus the light appropriately on to the fovea. To achieve this, the path of each individual ray of light after it crosses the anterior surface of the cornea must be known or modeled for each individual eye. This is attempted by ray-trace-based laser *in situ* keratomileusis (LASIK), which was introduced a decade ago.^{8,9} In its present form, an optical model of the eye is created based on the measured anterior and posterior corneal tomography, axial length, and anterior chamber depth. Using this optical model, or an "eyebat," the wavefront is calculated. Any difference between the measured eye wavefront and the eyebat-calculated wavefront is adjusted at the anterior surface of the crystalline lens such that the wavefront of the eyebat model approaches the measured whole-eye wavefront. Thus the light path/wavefront is modeled from the front corneal surface to the fovea. The model's anterior tomography can then be virtually treated to determine the change in angle of incidence at the cornea, which achieves the best possible postoperative wavefront.

A single diagnostic device called InnovEyes Sitemap (Alcon Laboratories, Inc.) measures the data for the model: corneal tomography (Scheimpflug principle), biometry (partial coherence interferometry), and total eye wavefront (Hartmann-Shack). The proprietary software then creates a model and automatically presents the most appropriate ablation profile for treatment.

The potential advantage of this methodology is that the model accounts for multiple refractive elements which may or may not be aligned, namely the cornea and the crystalline lens surfaces. The model also individualizes the treatment such that 2 eyes may have the same spectacle refraction, but can have potentially different eyevatars and ablation profiles. In addition, the ray-trace treatment has been modulated to account for laser efficiency, corneal biomechanics, and healing after myopic LASIK surgery.

This study presents the largest cohort of eyes to have been treated using ray-trace-based LASIK in a real-world private practice setting. Functional end points in addition to the effects of InnovEyes on postoperative higher-order aberrations (HOAs) are presented.

RESULTS

A retrospective chart review of consecutive adult patients undergoing ray-trace-based LASIK surgery for myopia was undertaken at a single center in Sydney, Australia, between February 2022 and December 2022. This study was conducted in accordance with the National Statement on Ethical Conduct in Human Research (2007) and the CPMP/ICH Note of Guidance on Good

Clinical Practice and followed the tenets of the Declaration of Helsinki. Consent to use deidentified data was obtained from the patients, and ethics approval was obtained from an external ethics committee.

Indusion criteria included myopic adults 18 years and older who underwent bilateral ray-tracing-based LASIK surgery with no coexisting ocular conditions or previous ocular surgery. For refractive stability, patients were instructed not to wear rigid or toric contact lenses for ≥ 2 weeks or soft contact lens for 1 week before preoperative screening and surgery. Preoperatively patients were required to have had stable refraction for 12 months confirmed through previous prescriptions. All eyes were targeted for emmetropia. Preoperatively at screening visits, patients underwent subjective refraction, cycloplegic fundus examination, and dilated fundus examination and optical ray-tracing-based LASIK device (InnovEyes Sitemap) captured measurements including biometry, wavefront refraction, whole-eye aberrometry, and tomography. The data were exported to the WaveNet server (Alcon Laboratories, Inc.) and excimer laser (EX500, Alcon Laboratories, Inc.). The ablation profile was generated using measurements in which the wavefront sphere and subjective sphere were within 0.5 diopters (D). No monogram adjustments were made in this cohort. A customized ablation profile based on the ray-tracing technology was automatically generated for each eye.¹

Bilateral sequential LASIK flaps were created at 110 microns using a WaveLight FS200 (Alcon Laboratories, Inc.) with a diameter of 9.2 mm. The excimer treatment, as mentioned above, was performed using a WaveLight EX500 (Alcon Laboratories, Inc.) with a treatment zone of 6.5 mm and using the ablation profile generated from the InnovEyes Sitemap data. All surgeries were performed by a single surgeon (C.B.). After the LASIK treatment, patients were reviewed at 1 day, 1 week, 1 month, and 3 months postoperatively. Wavefront measurement and subjective refraction were assessed at 3 months. All wavefront measurements were converted to 5-5-5 pupil.

The outcomes examined included corrected and uncorrected visual acuity, using the Early Treatment Diabetic Retinopathy Study chart, and manifest refraction spherical equivalent (MRSE) at 3 months. The percentage of eyes with absolute MRSE within 0.25 , ± 0.50 , ± 0.75 , and ± 1.00 D at month 3 is reported. The percentage of eyes that achieved a uncorrected distance visual acuity (UDVA) equal to or better than the preoperative corrected distance visual acuity (CDVA); percentage of eyes that achieved manifest refraction cylinder within ± 0.25 , ± 0.50 , and ± 1.00 D at 3 months; as well as preoperative and postoperative mean HOAs including root mean square values of Zernike orders 3 to 6 (RMS 3 to 6) and total HOAs (RMS total HOAs) are also reported.

Third-order aberrations include trefoil (Z_3^{-3} , Z_3^{-1}) and coma (Z_3^{-1} , Z_3^{-1}). Fourth-order aberrations include tetrafoil (Z_4^{-2} , Z_4^{-1}), secondary astigmatism (Z_4^{-2} , Z_4^{-1}), and spherical aberration (Z_4^{+1}). Fifth-order aberrations include Z_5^{-3} , Z_5^{-1} , Z_5^{-3} , Z_5^{-1} , and sixth-order (Z_6^{-4} , Z_6^{-2} , Z_6^{-4} , Z_6^{-2} , Z_6^{-3} , Z_6^{-1}) aberration composite values are reported. A paired *t* test was applied to the results where appropriate. A Bonferroni correction was applied to the $P = .05$ results for the 4 paired comparisons of wavefront data resulting in a Bonferroni-corrected P threshold of 0.0071.

Patients were divided into 4 groups based on postoperative UDVA (20/10, 20/12.5, 20/16 and 20/20) and their pre and postoperative HOAs were compared.

RESULTS

Four hundred eyes of 200 consecutive patients with myopia who underwent ray-trace-based LASIK were recruited in this study. All eyes underwent uncomplicated surgery. There were no cases of flap complications, infections, or diffuse lamellar keratitis. Patients were aged 30.87 ± 5.4 years on average; 58% were female with preoperative

1142

OPTICAL RAY-TRACING LASIK: 3-MONTH CLINICAL OUTCOMES

Table 1. Preoperative characteristics

Parameter	Ray-tracing-based LASIK	Left eye
Patients (eyes)	200 right and 200 left (400)	0.92 ± 0.37 (20.20, 1.64)
Age (y), mean \pm SD (range)	30.8 ± 5.4 (20, 48)	-0.12 ± 0.06 (-0.20, 0.00)
Female, n (%)	116 (58)	-3.5 ± 1.79 (-8.82, -0.25)
Male, n (%)	84 (42)	
Right eye		
Preop UDVA (logMAR), mean \pm SD (range)	0.91 ± 0.38 (0.20, 1.64)	
Preop COVA (logMAR), mean \pm SD (range)	-0.12 ± 0.06 (-0.20, 0.00)	
Manifest refraction sphere (D), mean \pm SD (range)	-3.35 ± 1.71 (-8.05, -0.25)	
Manifest refraction sphere category, n/N (%)		
0 to < -1.0 D	10 (5)	16 (8)
> -1.0 to < -2.0 D	40 (20)	29 (14.5)
> -2.0 to < -3.0 D	43 (21.5)	43 (21.5)
> -3.0 to < -4.0 D	45 (22.5)	47 (23.5)
> -4.0 to < -5.0 D	27 (13.5)	21 (10.5)
> -5.0 to < -6.0 D	24 (12)	25 (12.5)
> -6.0 to < -7.0 D	12 (6)	17 (8.5)
> -7.0 to < -8.0 D	3 (1.5)	2 (1)
> -8.0 to < -9.0 D	1 (0.5)	0 (0)
Manifest refraction cylinder (D), mean \pm SD (range)	-0.95 ± 0.82 (-4.4, -0.00)	-0.99 ± 0.80 (-4.37, 0.00)
Manifest refraction cylinder category, n/N (%)		
< -0.50 D	64 (32)	68 (32)
> -0.50 to < -1.00 D	68 (34)	68 (34)
> -1.00 to < -1.50 D	32 (16)	39 (19.5)
> -1.50 to < -2.00 D	17 (8.5)	15 (7.5)
> -2.00 to < -2.50 D	7 (3.5)	8 (4)
> -2.50 to < -3.00 D	3 (1.5)	5 (2.5)
> -3.00 to < -3.50 D	5 (2.5)	2 (1)
> -3.50 to < -4.00 D	1 (0.5)	4 (2)
> -4.00 to < -4.50 D	3 (1.5)	1 (0.5)
MRSE (D), mean \pm SD (range)	-3.84 ± 1.63 (-8.34, -0.84)	-3.98 ± 1.75 (-8.25, -0.5)
MRSE = manifest refraction spherical equivalent		

myopia from -8.25 to -0.25 D and mean CDVA of -0.12 logMAR. Baseline characteristics are summarized in Table 2 while baseline aberrations are summarized in Table 2. The total HOA preoperatively was 0.220 ± 0.073 μm (right eye 0.218 ± 0.072 μm , left eye 0.220 ± 0.076 μm).

The standardized graphs in Figure 1 demonstrate the visual and refractive outcomes of our cohort at 3 months. The mean postoperative sphere, cylinder, and spherical

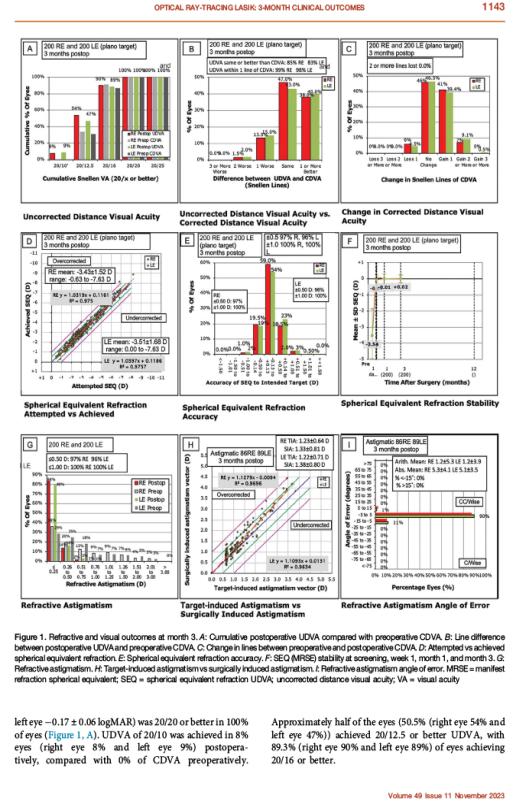
Table 2. HOAs

Aberrations (μm)	Right eye		Left eye		Change (postop-preop)	
	Preop (n = 200)	Month 3 (n = 200)	Change (postop-preop)	Preop (n = 200)	Month 3 (n = 200)	
Order 3	0.174 ± 0.070	0.233 ± 0.117	$0.060 \pm 0.136^*$	0.175 ± 0.073	0.224 ± 0.114	$0.050 \pm 0.129^*$
Order 4	0.118 ± 0.055	0.127 ± 0.057	$0.010 \pm 0.069^*$	0.119 ± 0.056	0.131 ± 0.056	$0.012 \pm 0.073^*$
Order 5	0.024 ± 0.011	0.022 ± 0.021	$0.029 \pm 0.022^*$	0.023 ± 0.011	0.053 ± 0.025	$0.029 \pm 0.025^*$
Order 6	0.017 ± 0.007	0.042 ± 0.016	$0.025 \pm 0.016^*$	0.018 ± 0.008	0.043 ± 0.018	$0.025 \pm 0.018^*$
Total HOAs	0.218 ± 0.072	0.281 ± 0.116	$0.063 \pm 0.133^*$	0.220 ± 0.076	0.277 ± 0.112	$0.057 \pm 0.125^*$
Coma	0.120 ± 0.062	0.196 ± 0.114	$0.075 \pm 0.130^*$	0.118 ± 0.069	0.187 ± 0.113	$0.069 \pm 0.126^*$
Spherical aberration	0.064 ± 0.088	0.017 ± 0.097	$-0.047 \pm 0.095^*$	0.066 ± 0.086	0.015 ± 0.098	$-0.051 \pm 0.091^*$

*Statistically significant

Volume 49 Issue 11 November 2023

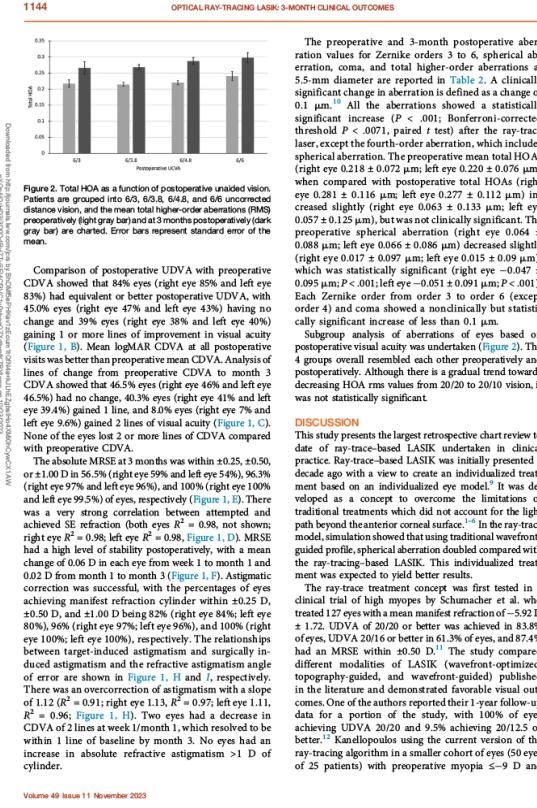
A/Prof Bala's research paper cont'd...



left eye -0.17 ± 0.06 logMAR) was 20/20 or better in 100% of eyes (Figure 1, A). UDVA of 20/10 was achieved in 8% of eyes (right eye 8% and left eye 9%) postoperatively, compared with 0% of CDVA preoperatively.

Approximately half of the eyes (50.5% (right eye 54% and left eye 47%)) achieved 20/12.5 or better UDVA, with 89.3% (right eye 90% and left eye 89%) of eyes achieving 20/16 or better.

Volume 49 Issue 11 November 2023



Comparison of postoperative UDVA with preoperative CDVA showed that 84% eyes (right eye 85% and left eye 83%) had equivalent or better postoperative UDVA, and 45.0% eyes (right eye 47% and left eye 43%) having no change and 39% eyes (right eye 38% and left eye 40%) gaining 1 or more lines of improvement in visual acuity (Figure 1, B). Mean logMAR CDVA at all postoperative visits was better than preoperative mean CDVA. Analysis of 4 groups overall resembled each other preoperatively and postoperatively. Although there is a gradual trend towards decreasing HOAs from values from 20/20 to 20/10 vision, it was not statistically significant.

Subgroup analysis of aberrations of eyes based on postoperative visual acuity was undertaken (Figure 2). The 4 groups overall resembled each other preoperatively and postoperatively. Although there is a gradual trend towards decreasing HOAs from values from 20/20 to 20/10 vision, it was not statistically significant.

DISCUSSION
This study presents the largest retrospective chart review to date of ray-trace-based LASIK undertaken in clinical practice. Ray-trace-based LASIK was initially presented a decade ago with a view to create an individualized treatment based on an individualized eye model.¹ It was developed as a concept to overcome the limitations of traditional LASIK, which did not take into account the optical path beyond the anterior corneal surface.¹⁻³ In the ray-trace model simulation, showing that using traditional wavefront-guided profile, spherical aberration doubled compared with the ray-tracing-based LASIK. This individualized treatment was expected to yield better results.

RESULTS

The ray-trace treatment concept was first tested in a clinical trial of high myopes by Schumacher et al. who treated 127 eyes with a mean manifest refraction of -5.92 ± 1.72 DUDVA of 20/20 or better was achieved in 83.8% of eyes (right eye 86% and left eye 81%) of eyes, and 87.4% had an MRSE within -0.50 D.⁴ The authors reported different modalities of LASIK (wavefront-optimized, topography-guided, and wavefront-guided) published in the literature and demonstrated favorable visual outcomes. One of the authors reported their 1-year follow-up data for a portion of the study, with 100% of eyes achieving UDVA 20/20 and 9.5% achieving 20/12.5 or better.¹¹ Kanellopoulos using the current version of the ray-tracing algorithm in a smaller cohort of eyes (50 eyes of 25 patients) with preoperative myopia ≤ -9 D and

astigmatism ≤ -6 D also achieved similar results.¹² At 6 months, 100% of eyes achieved UDVA of 20/20 or better and more than 40% achieved 20/16 vision or better.

In this study, UDVA of 20/20 was achieved in 100%, 20/16 or better in 89% to 90%, 20/12.5 or better in 50.5% (right eye 54%, left eye 47%), and 20/10 in 8% eyes (right eye 8%, left eye 9%). The results of this study compare favorably with wavefront-guided treatment, which achieved 20/20 in 89% to 90%, 20/12.5 or better in 50.5% and 20/10 or better in 25% of eyes. The topography-guided treatment with the same excimer laser at 3 months achieved 20/20 in 93% of eyes, 20/16 or better in 69%, 20/12.5 or better in 32%, and 20/10 or better in 8%. This study screened patients who were ideal candidates, for whom the topographic astigmatism matches the manifest astigmatism. The use of analytic engines to modify topography-guided treatment, which made use more widespread, have been reported to achieve 20/20 to 100% of eyes in 20/20 or better, as predicted in the theoretical model.^{13,14} Despite 21% of the treated cohort being ≤ -5 D sphere, a cohort in which a traditional laser ablation profile would be expected to increase the spherical aberration. Traditional ablation profiles are associated with an increase in total HOAs and spherical aberrations by as much as 2 to 17 times.¹⁴⁻¹⁹ The ray-trace-based LASIK performed much better compared with these earlier reports. It is important to note that comparison with previous studies is limited by pupil diameter, however, it is not clear from the above discussion that this comparison can be extrapolated to patients with greater than 0.3 to 0.4 μ m HOAs. A further in-depth analysis is needed to examine the effect of laser ablation on individual HOAs components.

DISCUSSION

It is important to note that in this study, a small cohort of eyes (8%) achieved 20/10 vision. Outcomes of 20/10/20 excellent preoperative measurements, uncomplicated surgery, and a laser ablation profile that induces minimal HOAs. Postoperative total HOAs were analyzed in groups based on preoperative HOAs. There was no significant difference between HOAs within the 20/20, 20/16, and 20/12.5 groups. The 20/10 group had a significantly higher HOA compared with a preoperative value of 0.92 logMAR. No eyes lost 2 or more lines in this study population. The favorable results in this study could be attributed to a single device (Innoeyes Stemap) which was used to measure the eye. All calculations were performed automatically and integrated, reducing the need for manual treatment planning and potential for measurement error from using a variety of equipment. The current treatment profile also incorporated a topography-guided and ablation-related astigmatism, manifest HOAs, and wound healing response in its planning. This and the lower preoperative myopia (MRSE = -3.39 ± 1.58 D) likely explain the better outcomes of this study compared with previous ray-trace studies.¹¹

DISCUSSION

The attempted SEQ and achieved SEQ were almost linearly distributed with slopes of 1.0319 in the right eye and 1.0397 in the left eye and a high R^2 value of 0.97 (right eye and left eye). However, Figure 1, D and E indicates a potential overcorrection of 0.25 D above -5 D. This needs to be confirmed with a larger cohort of eyes as shown above ≤ -5 D. The astigmatism also demonstrates an overcorrection. Although 96% of eyes are within 0.5 D, the slope in Figure 1, H suggests an 11% (left eye) to 13% (right eye) overcorrection, which would need confirmation with an in-depth analysis of both low and high astigmatism to determine the cause and the offset that would be required to bring all eyes within 0.5 D. This study includes only patients to reflect everyday clinical practice. The statistical analysis was performed for each eye separately.

Volume 49 Issue 11 November 2023

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WHAT WAS KNOWN

- Ray-trace-based LASIK in clinical practice is known to achieve stable and excellent 20/20 in 100% of high myopes.
- The outcomes are known to be stable.

WHAT THIS PAPER ADDS

- This large cohort shows successful outcomes in everyday clinical practice with the eye attaining a vision of 20/12.5.
- There was no clinically significant increase in HOAs. The spherical aberration decreased postoperatively.

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Disclosures: C. Bala is a consultant for Alcon Laboratories, Inc. and Johnson & Johnson Vision. The other author has no financial or proprietary interest in any material or method mentioned.

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Volume 49 Issue 11 November 2023

Expert profiles



PROFILE

EMBARGOED: SATURDAY, DECEMBER 2, 2023

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Associate Professor (A/Prof) Chandra Bala is an Ophthalmologist and Director of [PersonalEYES - The Vision Specialists](#) – a leading, Australian, corrective eye surgery group offering a range of vision correction procedures and ophthalmic services at 10 clinics throughout NSW and the ACT.

A/Prof Bala specialises in cataract, cornea, and refractive surgery. He is an Associate Professor Australian School of Advanced Medicine (ASAM), [Macquarie University](#), Sydney, where he teaches ophthalmology and visual science to undergraduate and postgraduate students.

He serves as Chairman of the Medical Advisory Committee at [Paramatta Eye Hospital and Day Surgery](#), and is a member of the Board of Examiners for Ophthalmic Sciences – a [RANZCO](#) specialist training programme.

In 1994, A/Prof Bala obtained a Bachelor of Science (Med) with Honours (Class 1) at [The University of Sydney \(USYD\)](#). He next completed a Bachelor of Medicine and a Bachelor of Surgery (MBBS) in 1997, at USYD, and was awarded first class Honours.

In 2001, A/Prof Bala commenced ophthalmic training at the [Sydney Eye Hospital](#), and [Westmead Hospital, Sydney](#), which helped him to secure a PhD in Ophthalmology.



He has completed multiple Fellowships under leading surgeons in Australia and throughout Europe, a cornea Fellowship with Dr Gerrit Melles, Holland; and a refractive fellowship with Dr Ioannis Aslanides, Greece.

A/Prof Bala has won numerous awards at international conferences, including 'Best Paper' at the [American Society of Cataract and Refractive Surgery \(ASCRS\)](#), in Boston, 2014. In 2019, he was awarded 'Best Video' at the American Society of Cataract and Refractive Surgery (ASCRS), in San Diego, and at the [Asia-Pacific Association of Cataract and Refractive Surgeons \(APACRS\)](#), in Kyoto. In the same year, A/Prof Bala won the 'Michael Blumenthal Award' at the [European Society of Cataract and Refractive Surgeons \(ESCRS\)](#), in Paris for his invention the DMEK corneal punch. This is used in corneal transplantation.

He is also the discoverer of deferiprone for the topical treatment of corneal blood staining – a non-surgical method which avoids a transplant.

PROFILE

EMBARGOED: SATURDAY, DECEMBER 2, 2023

Clinical Associate Professor Andrew White

BMEDSC(HONS), MBBS, PHD, FRANZCO

Clinician Scientist Ophthalmologist, Westmead Hospital, & Glaucoma Specialist, PersonalEYES, **CANBERRA**

Clinical Associate Professor Andrew White is a Clinician Scientist Ophthalmologist at Westmead Hospital, Sydney, who specialises in glaucoma and cataract surgery. He also serves as a Glaucoma Specialist at [PersonalEYES - The Vision Specialists](#), at the organisation's Canberra and Sydney clinics. He has research affiliations with [The University of Sydney \(USYD\)](#) at their [Save Sight Institute](#), and [Westmead Institute for Medical Research](#), Sydney.

A/Prof White is a Board Member of the [Ophthalmic Research Institute of Australia](#); a NSW Branch Committee Member of the [Royal Australian and New Zealand College of Ophthalmology \(RANZCO\)](#); and a member of the [Australian and New Zealand Glaucoma Interest Group \(ANZGIG\)](#), the [Association for Research in Vision and Ophthalmology \(ARVO\)](#), and the [European Glaucoma Society \(EGS\)](#), respectively.



He sits on both the Associate Advisory Board for the [World Glaucoma Association \(WGA\)](#), as well as its communications committee. In addition, he is a member of the World Glaucoma Society Associate Advisory Board, and current Chair for both the [Glaucoma Australia Expert Advisory Panel](#), and the [NSW Government Agency for Clinical Innovation C-Eye-C Project](#), which examines new models of health care delivery for chronic eye diseases.

He is an author of the [Asia Pacific Glaucoma Society Guidelines on the management of glaucoma](#) published in 2016, and the lead author of the [RANZCO endorsed guidelines for collaborative management of glaucoma](#).

In 1995, A/Prof White obtained a Bachelor of Science (Med) with Honours (Class 1) from USYD. He was next awarded a combined Bachelor of Medicine and Bachelor of Surgery with a PhD (MBBS/PhD) in 2001, at USYD.

In 1999 A/Prof White undertook research at the [Max Planck Institute for Biophysical Chemistry](#), Germany, and [The State University of New York \(SUNY\)](#), respectively. Between 2006 and 2010, he trained at the [Sydney Eye Hospital](#). In 2010, A/Prof White completed a Glaucoma Fellowship at both Westmead Hospital, and [Addenbrooke's Hospital](#), Cambridge, UK. Throughout his tenure in the UK, he performed research at the [Centre for Brain Repair](#), Cambridge, and in 2011 was promoted to Consultant Ophthalmologist at Addenbrooke's Hospital, and to Senior Lecturer in Ophthalmology at the [University of Cambridge](#).

A/Prof White has spoken at numerous glaucoma and ophthalmology conferences throughout Australia, the UK, Europe, and Asia. As a clinician-scientist, A/Prof White's work has been published in 78 peer-reviewed scientific journals. He is also a reviewer for the [Journal of Glaucoma, Clinical and Experimental](#)

Case studies

CASE STUDY

EMBARGOED: SATURDAY, DECEMBER 2, 2023

Chris, 42

**Accounting firm MD, soccer player & father-to-two
who wrestled with blurry vision for almost two decades, SYDNEY**

Accounting firm Managing Director, finance teacher, soccer player and father-to-two, Chris, 42, Sydney, lived with myopia (shortsightedness) and astigmatism (blurred vision) for almost 20 years before finding a permanent solution.

Myopia and astigmatism are common eye conditions afflicting more than seven million Australian adults.¹ Caused by light failing to focus correctly on the eyes, often due to eye shape or size,^{2,3} both conditions can significantly affect a person's quality of life, including daily activities such as driving, playing sport, and shopping.⁴

Nineteen years ago, while sitting in a Uni lecture theatre, Chris recalls being unable to see the screen clearly. Later that year, he visited an optometrist, who subsequently diagnosed him with both myopia and astigmatism, and prescribed glasses for daily wear. A year later, he was prescribed contact lenses.

Initially, Chris' assisted vision was crisp. However, the novelty soon wore off, as he began to rely heavily on prescription glasses and sunglasses to fulfil everyday activities, including driving, reading, and teaching.

Chris subsequently faced the upkeep, maintenance, and inconvenience of frequently losing, and/or forgetting where he placed his glasses and sunglasses. He nonetheless persisted for almost two decades, without considering other options available to him.

Recently, at his friend's recommendation, Chris chose to seek a permanent, corrective, customised laser eye technology treatment.

Today, Chris is urging Australian adults to prioritise their eyecare, and to consider all available treatment options best tailored to their lifestyle.

This is Chris' story.

Chris had good eyesight throughout his childhood and teens, until one day, when sitting in a Uni lecture theatre at the age of 23, his vision suddenly became blurry. Chris felt confused as to why he couldn't see the theatre screen that was crystal clear from the same, seated position, the day prior.

"My eyesight went from crystal clear one day, to blurry the next.

"Then, whenever I played soccer, I would see the ball bouncing towards me, but couldn't see the ball in the distance," said Chris.

Chris sought professional help for his failing eyesight when his active, daily life was being compromised by his ability to see only short distances.

"I got glasses, which corrected my eyesight. But the novelty of glasses soon wore off. About a year later, I had to get contact lenses because I couldn't wear glasses while playing soccer, and I didn't like wearing glasses out to social events," Chris said.

"I wore my contact lenses when playing soccer. But after a while on the field, I used to get tired, and my vision would turn foggy.



CASE STUDY

EMBARGOED: SATURDAY, DECEMBER 2, 2023

Maddie, 21

Aspiring flight attendant who wrestled with poor vision for more than a decade, SYDNEY

Aspiring flight attendant, Maddie, 21, Sydney, lived with myopia (shortsightedness) in her right eye, and hyperopia (farsightedness) in her left eye for more than a decade.

During this period, Maddie's poor vision significantly compromised her ability to perform everyday activities, independently, and to fully embrace life.

Myopia and hyperopia are common eye conditions affecting more than 12 million Australian adults.¹ Caused by light failing to focus correctly on the eyes, often due to eye shape or size,^{2,3} both conditions can significantly affect a person's quality of life, including everyday activities such as driving, playing sport, and shopping.⁴

Diagnosed at eight years of age, Maddie did not fully comprehend the true impact of her poor vision until she entered early adulthood. At that juncture, Maddie began to feel insecure, and to grapple with low self-confidence.

Over time, the gravity of her failing eyesight began to pervade other aspects of Maddie's life. Driving became insurmountable, as she was unable to read road signs or see nearby objects and other vehicles on the road, with clarity, particularly at night. In turn, Maddie lost complete confidence in driving, which further compounded her then low self-esteem.

After entering the workforce, Maddie struggled to perform simple tasks. Her blurry vision made it challenging to read the computer screen, let alone see her colleagues from afar.

She consequently turned to glasses and contact lenses as an interim, corrective measure, but often experienced headaches, as well as dry and irritated eyes.

Over time, Maddie sought a permanent, personalised, corrective solution in order to regain her vision, independence, and self-confidence.

Today, Maddie is urging all Australian adults to prioritise their eyecare, and to consider all available treatment options best tailored to their individual lifestyle.

This is Maddie's story.

Maddie vividly recalls receiving her first pair of glasses from an ophthalmologist at eight years of age.

For many years Maddie willingly wore glasses to correct her poor vision. But as she grew older, her failing eyesight began to affect her quality of life.

"Although I never truly understood why I needed to wear glasses all the time as a kid, they didn't bother me, and I grew accustomed to them.

"It was only when I grew up, that I started to feel insecure and frustrated by having to constantly wear glasses to see, and to function in everyday life," said Maddie.

Case studies cont'd...

CASE STUDY

EMBARGOED: SATURDAY, DECEMBER 2, 2023

Albert, 32

Entrepreneur & business owner who struggled with myopia & astigmatism for 16 years, SYDNEY

Entrepreneur and business owner, Albert, 32, Sydney, endured myopia (shortsightedness) and astigmatism (blurred vision) for 16 years, until recently finding a permanent solution to his poor vision.

Myopia and astigmatism are common eye conditions afflicting more than seven million Australian adults.¹ Caused by light failing to focus correctly on the eyes, often due to eye shape or size,^{2,3} both conditions can significantly affect a person's quality of life, including daily activities such as driving, playing sport, and shopping.⁴

Albert recalls developing blurry vision in his late teens, and gradually losing his eyesight. After visiting an optometrist at 16 years of age, he was subsequently diagnosed with myopia.

Albert was recommended prescription glasses for daily wear, as well as contact lenses to correct his myopia. Although his vision initially improved, eventually Albert found wearing glasses to be cumbersome, frustrating, and inconvenient, particularly when he forgot, misplaced, or lost his glasses.

Three years after his myopia diagnosis, Albert was also diagnosed with astigmatism, which further compromised his eyesight.

Tired of wrestling with glasses and contact lenses, Albert recently chose to explore permanent, personalised, corrective treatment options. Fortunately, he found a tailored treatment that worked for him.

Today, Albert has chosen to share his story, to raise community awareness, and understanding of myopia and astigmatism, and the importance of prioritising eye care. He urges other adults living with eye conditions to explore all available treatment options, without delay.

This is Albert's story.

Albert's eyesight started to fail at 16 years of age. His bad eyesight was particularly noticeable at social events. He nonetheless, chose to "put up with poor eyesight" for many years, not truly understanding the extent of his compromised vision.

"Living with bad eyesight felt relatively normal for me for many years.

"When I finally got glasses at 16 years of age, they initially improved my eyesight. But soon after, I realised they were not a permanent, tailored solution for me," said Albert.

"Over time, my eyesight became progressively worse.

"Three years after being diagnosed with myopia, I was also diagnosed with astigmatism," Albert said.



CASE STUDY

EMBARGOED: SATURDAY, DECEMBER 2, 2023

Jodie, 31

HR specialist & yoga & pilates enthusiast who struggled with deteriorating eyesight for almost a decade, SYDNEY

'People and culture' Human Resources (HR) specialist, yoga and pilates enthusiast, and avid traveller, Jodie, 31, Sydney, struggled with the common eye condition, myopia (shortsightedness), for almost a decade before seeking a permanent corrective eyecare treatment.

Both myopia and astigmatism (eye imperfection) are common eye conditions afflicting more than seven million Australian adults.¹ Caused by light failing to focus correctly on the eyes, often due to eye shape or size,^{2,3} both conditions can significantly affect a person's quality of life, including daily activities such as driving, playing sport, and shopping.⁴

Jodie was diagnosed with myopia by an optometrist after commencing her first office role in 2014. After spending day after day focusing on a computer screen, Jodie developed severe eyestrain and debilitating migraines. She was subsequently prescribed corrective glasses for computer use.

For the ensuing two years however, Jodie used her glasses infrequently at work. As a result, her eyesight continued to deteriorate. She was then required to wear her glasses daily to see, and to incorporate contact lens use into her weekends, to accommodate for her lifestyle.

When she switched to contact lens use, Jodie struggled with their insertion and removal. Yet she persisted due to her lack of confidence when wearing glasses out with her friends.

Jodie wore glasses and contact lenses for almost 10 years. Eventually, after going on a European holiday this year and experiencing the inconvenience of wearing contact lenses at the beach and when out socialising with her friends, Jodie went in search of a permanent, corrective, customised eyecare solution.

Today, she is urging Australian adults to prioritise their eyecare and to consider all available treatment options.

This is Jodie's story.

Jodie had good eyesight throughout her childhood, teens, and early adulthood until she began her first professional role which involved looking at a computer screen all day.

Six months into the role, Jodie developed severe eyestrain, which triggered bad headaches. She then started to wear her glasses when working on her computer. However, Jodie's eyesight continued to progressively deteriorate, even when wearing glasses.

"When I took off my glasses, things in the distance were harder to see, and driving became increasingly difficult.

"I started to wear my glasses during my pilates class because I couldn't see my instructor. But they constantly slid off my face," said Jodie.



Video News Release (VNR)



VNR

Pieces to camera



Dr Bala's piece to camera

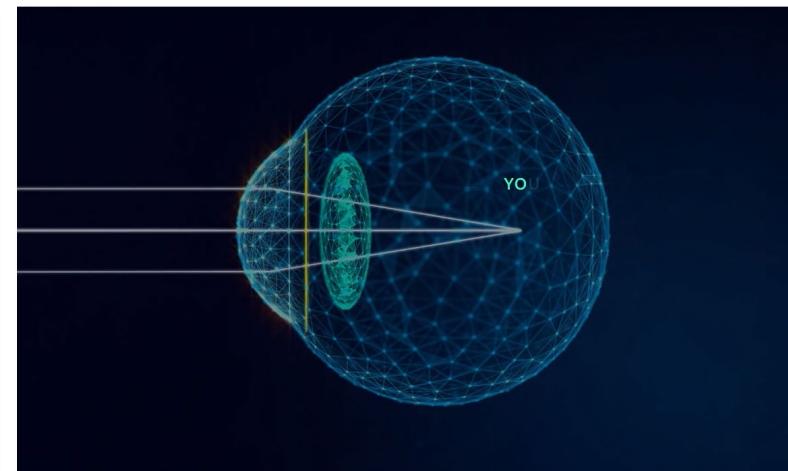
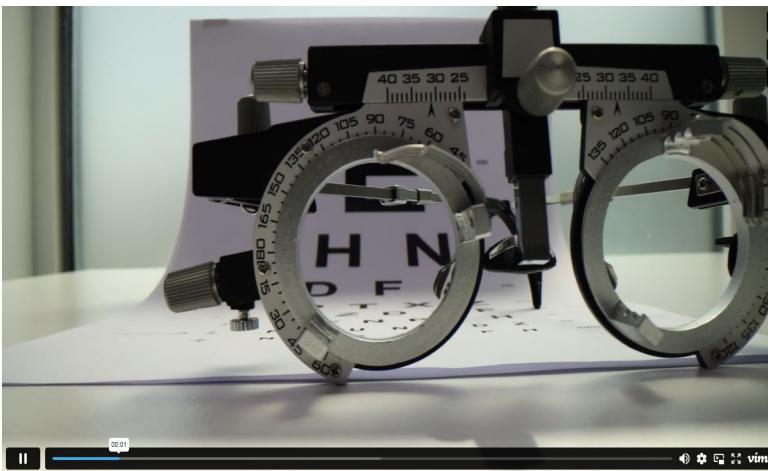
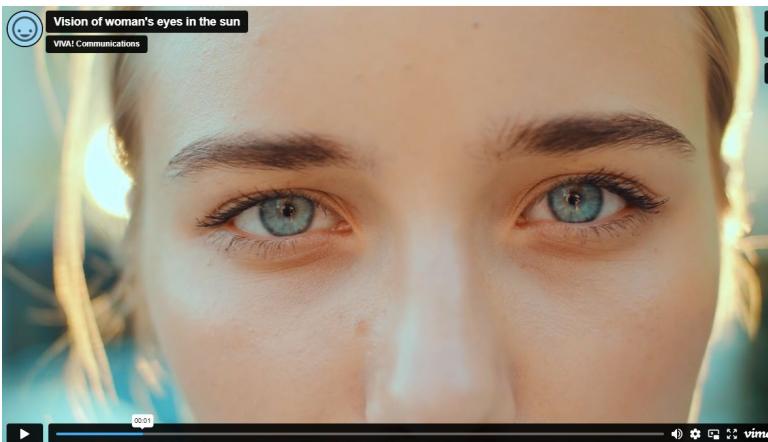


Chris, 42, Sydney, piece to camera

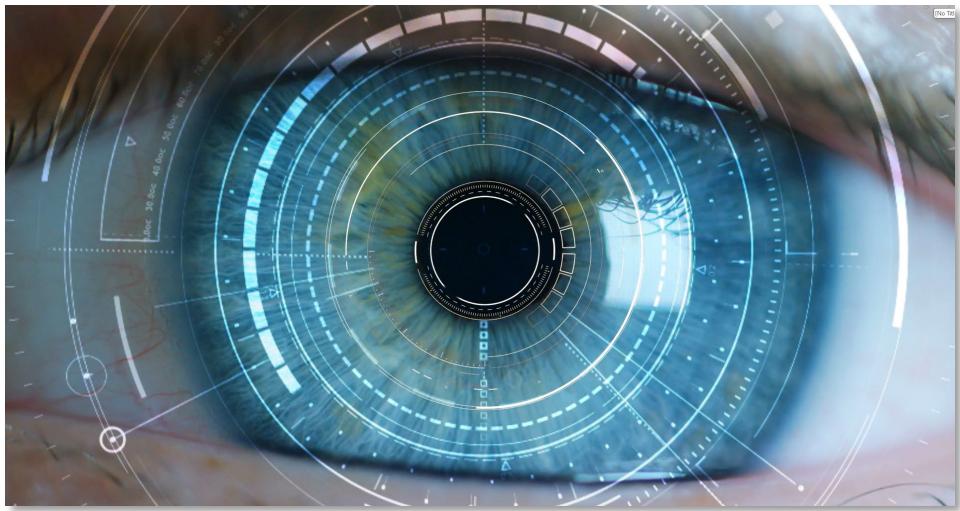


Maddie, 21, Sydney, piece to camera

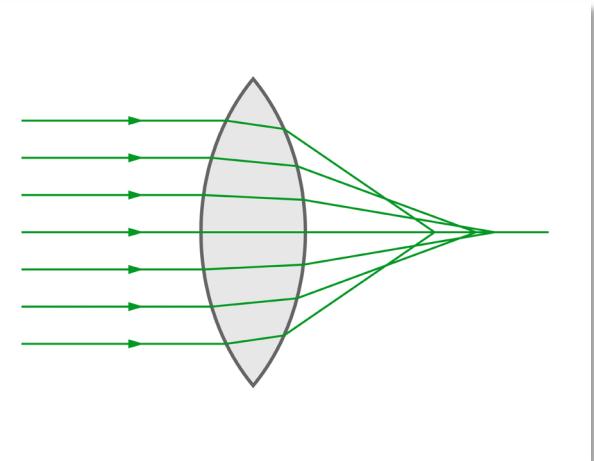
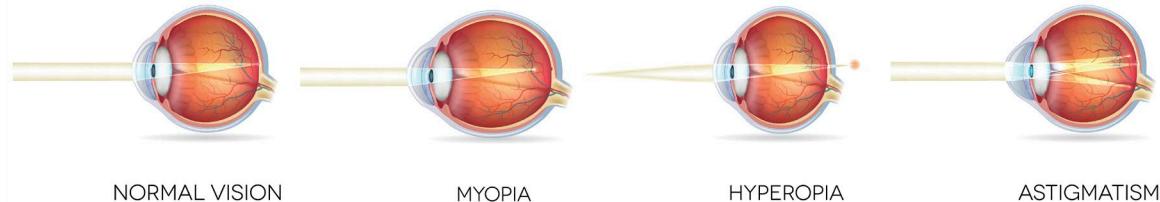
3-D animations + vision



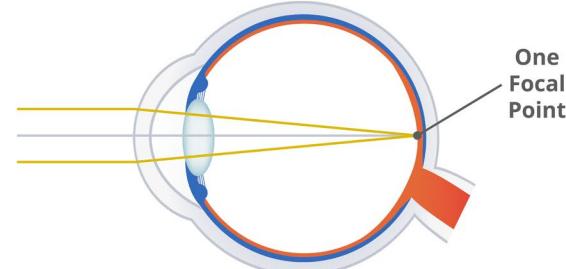
Still images



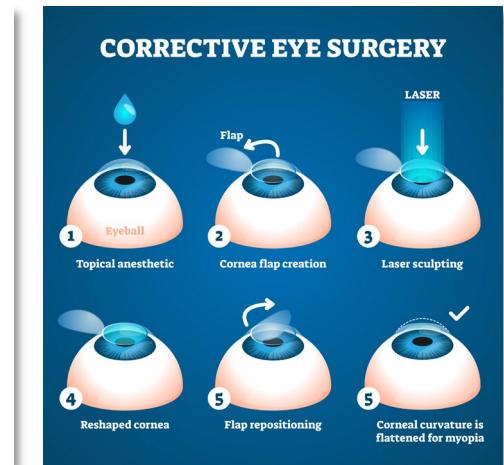
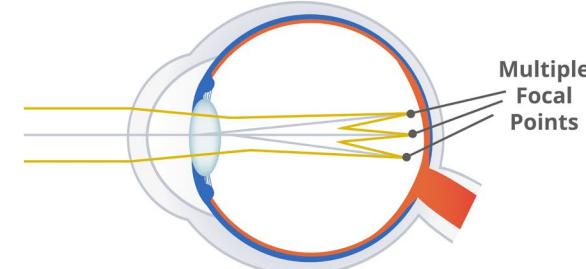
VISION DISORDERS



Normal Vision



Astigmatism



Consumer media collateral – Imagery



Digital Media Kit (DMK)

PersonalEYES digital media kit

EMBARGOED: SATURDAY, DECEMBER 2, 2023

Media alert **MEDIA ALERT**
EMBARGOED: SATURDAY, DECEMBER 2, 2023

Media release

Backgrounder

Ray-tracing research

Expert profiles

Patient case studies

VNR + Pictures to camera

Additional vision

Imagery

Personalised 'eyevatar' ray-tracing technology set to unlock HD-vision

90% of adult patients achieving '20/15' vision or more with next-generation laser eye treatment: new AUS research

More than seven million Aussie adults living with the common eye conditions, myopia (shortsightedness) and astigmatism (eye imperfection), are set to benefit from the launch of next-generation, 'customised' laser eye technology designed to achieve high-definition (HD) vision, this **Saturday, December 2, 2023**.

Unveiling of the personalised, laser eye correction treatment employing **NASA Hubble Space telescope** eye tracking technology this Saturday, has been spearheaded by new Australian-first research revealing 90 per cent of treated patients achieved 20/15 vision (better than 20/20 vision), while 50 per cent of patients achieved 20/15 vision.²

According to new research author, Ophthalmologist, and Director of PersonalEYES, Associate Professor Chandra Bala, Sydney, who has performed the advanced, ray-tracing laser eye treatment on more than 1,000 patients to date, this novel, diagnostic technology is poised to improve the diagnosis, treatment and outcomes for people living with myopia and astigmatism.

²The technology generates a personalised, multidimensional, 3D model of the eye, or 'eyevatar', enabling eye surgeons to **move beyond 20/20 vision, and in most cases, to achieve HD-vision.**²

PersonalEYES digital media kit

EMBARGOED: SATURDAY, DECEMBER 2, 2023

Media alert **MEDIA RELEASE**
EMBARGOED: SATURDAY, DECEMBER 2, 2023

Media release

Backgrounder

Ray-tracing research

Expert profiles

Patient case studies

VNR + Pictures to camera

Additional vision

Imagery

Personalised 'eyevatar' ray-tracing technology set to unlock HD-vision

90% of adult patients achieving '20/15' vision or more with next-generation laser eye treatment: new AUS research

More than seven million Aussie adults living with the common eye conditions, myopia (shortsightedness) and astigmatism (eye imperfection) are set to benefit from today's launch of next-generation, customised laser eye technology.

According to new Australian research published in the **Journal of Cataract & Refractive Surgery**, next-generation, ray-tracing guided laser eye technology generates a personalised, multidimensional, 3D eye model, or 'eyevatar', enabling eye surgeons to **move beyond 20/20 vision**, and in most cases, to achieve high-definition, or HD-vision.²

Now research author, Ophthalmologist, and Director of PersonalEYES, Associate Professor Chandra Bala, Sydney – Australia's first to have performed the procedure (more than 1,000 ray-tracing laser eye procedures to date) – said the novel technology is poised to improve the diagnosis, treatment and outcomes for people living with myopia and astigmatism.

²For the first time, we are now offering 'personalised' laser eye correction, employing **NASA Hubble Space telescope** [which measures the size of the nearest, transiting, earth-sized planet] eye tracking technology, that allows the laser to move faster than the eye, simultaneously detecting and accommodating for any eye movements like never before.

³This advanced diagnostic technology directs 500 beams of light at the eye, measuring and collecting data from the reflected light with microscopic precision of 1/100,000 of a millimetre.



PersonalEYES digital media kit

EMBARGOED: SATURDAY, DECEMBER 2, 2023

Media alert **BACKGROUNDER**
Media release **EMBARGOED: SATURDAY, DECEMBER 2, 2023**
Backgrounder
Ray-tracing research
Expert profiles
Patient case studies
VNR + Pieces to camera
Additional vision
Imagery

About the eyes, common eye conditions, new research findings & next-generation, ray-tracing laser eye technology

About the eyes and 20/20 vision

- In a healthy eye, light passes through the front of the eye and lens, allowing light to focus on the retina (the back of the eye) at a single point, creating an image.
- An abnormal eye shape and size (and its components) can hinder its ability to focus light correctly away.¹⁻²
- Better than 20/20 vision, for example 20/15 vision, means a person can view an object from 20 feet away, with the same clarity as someone who is 15 feet (4.5 metres) away from the same object.³⁻⁵

Common eye conditions

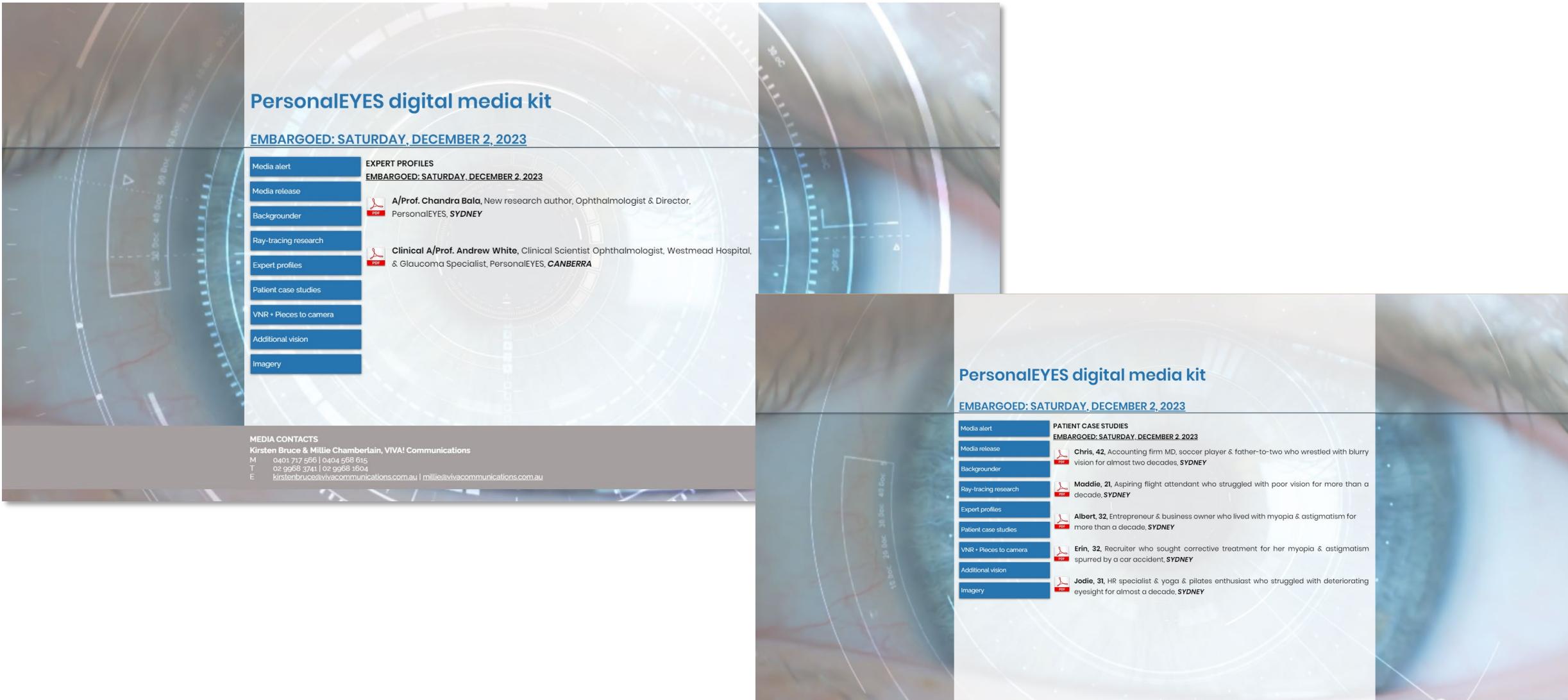
Myopia

- Myopia, also known as 'short' or 'near' sightedness, is a common eye condition that makes distant

NORMAL VISION **MYOPIA** **ASTIGMATISM**



DMK cont'd...



PersonalEYES digital media kit

EMBARGOED: SATURDAY, DECEMBER 2, 2023

Media alert EXPERT PROFILES
Media release EMBARGOED: SATURDAY, DECEMBER 2, 2023
Backgrounder  **A/Prof. Chandra Bala**, New research author, Ophthalmologist & Director, PersonalEYES, SYDNEY
Ray-tracing research
Expert profiles  **Clinical A/Prof. Andrew White**, Clinical Scientist Ophthalmologist, Westmead Hospital, & Glaucoma Specialist, PersonalEYES, CANBERRA
Patient case studies
VNR + Pieces to camera
Additional vision
Imagery

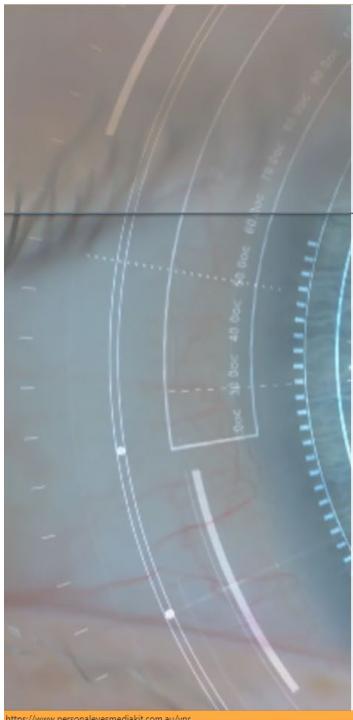
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PersonalEYES digital media kit

EMBARGOED: SATURDAY, DECEMBER 2, 2023

Media alert PATIENT CASE STUDIES
Media release EMBARGOED: SATURDAY, DECEMBER 2, 2023
Backgrounder  **Chris, 42**, Accounting firm MD, soccer player & father-to-two who wrestled with blurry vision for almost two decades, SYDNEY
Ray-tracing research
Expert profiles
Patient case studies  **Maddie, 21**, Aspiring flight attendant who struggled with poor vision for more than a decade, SYDNEY
 **Albert, 32**, Entrepreneur & business owner who lived with myopia & astigmatism for more than a decade, SYDNEY
 **Erin, 32**, Recruiter who sought corrective treatment for her myopia & astigmatism spurred by a car accident, SYDNEY
 **Jodie, 31**, HR specialist & yoga & pilates enthusiast who struggled with deteriorating eyesight for almost a decade, SYDNEY
VNR + Pieces to camera
Additional vision
Imagery

DMK cont'd...



PersonaleYES digital media kit

EMBARGOED: SATURDAY, DECEMBER 2, 2023

- Media alert
- Media release
- Backgrounder
- Ray-tracing research
- Expert profiles
- Patient case studies
- VNR + Pieces to camera
- Additional vision
- Imagery

VIDEO NEWS RELEASE

EMBARGOED: SATURDAY, DECEMBER 2, 2023



Download broadcast quality VNR here: <https://vimeo.com/889789337/138e930604?share=copy>

Download the full transcript including shot list below.



PersonaleYES digital media kit

EMBARGOED: SATURDAY, DECEMBER 2, 2023

- Media alert
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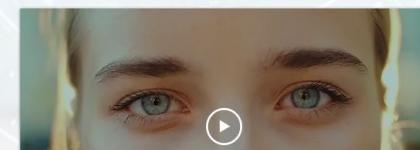
ADDITIONAL VISION

EMBARGOED: SATURDAY, DECEMBER 2, 2023

Animations



Download here: <https://vimeo.com/887130922/5c0adec569?share=copy>



DMK cont'd...



PersonalEYES digital media kit

EMBARGOED: SATURDAY, DECEMBER 2, 2023

- Media alert
- IMAGERY
- Media release
- EMBARGOED: SATURDAY, DECEMBER 2, 2023
- Backgrounder
- A/Prof. Chandra Bala
- Ray-tracing research
- Expert profiles
- Patient case studies
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PersonalEYES digital media kit

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- Media alert
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Traffic Overview

Last 30 days (Nov 7 - Today)

compared to previous period (Oct 8 - Nov 6, 2023)

Site sessions

57

Unique visitors

45

Sessions over time



Sessions by traffic source

Direct

55

ddec1-0-en-ctp.trendmicro.com

1

eyetalk.squarespace.com

1

Google.com

Get traffic

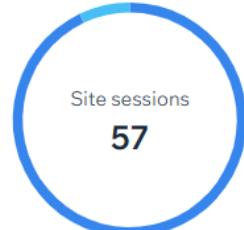
Wix email marketing

Get traffic

See Full Report

Avg. sessions by day

Sessions by device



57

See Full Report

New vs returning visitors



45

See Full Report

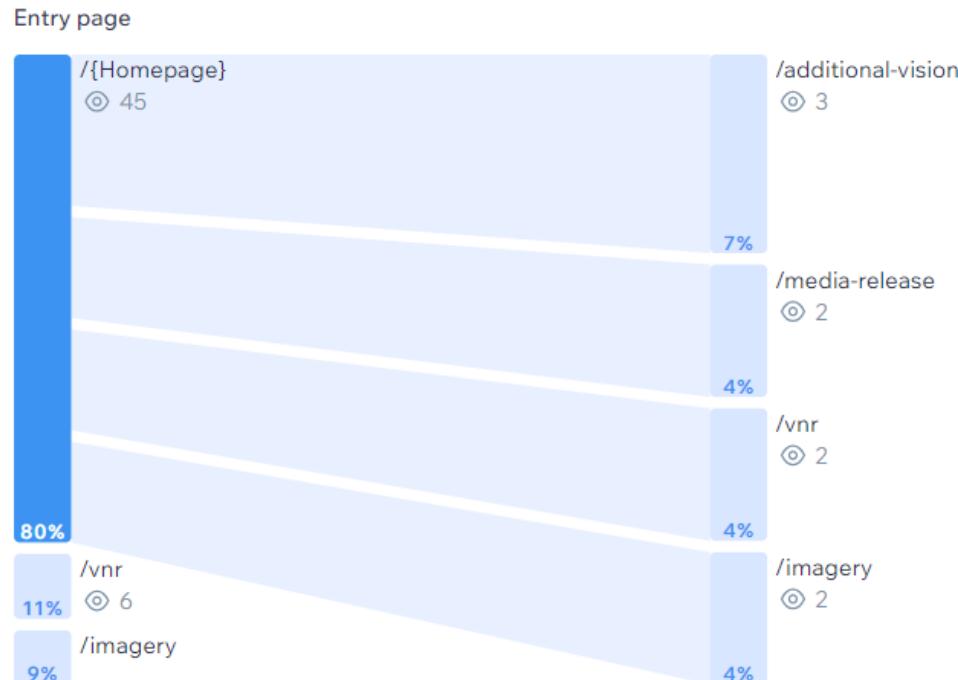
Avg. sessions by day



See Full Report

DMK analytics cont'd...

Top navigation flows



Analytics:

Our digital media kit had a total of **45 unique visitors & 57 site sessions** between **November 23 – December 5, 2023**

Site most visited on **Saturday, December 2, 2023** – the day of our consumer news media launch

From the homepage, 11% of site visitors accessed our VNR & 9% of site visitors accessed our imagery



TV media outcomes

TV media outcomes



Channel 10 news first - Preview

December 2, 2023, 17:13

Duration: 00:10

Audience: 1,338,694

Channel 10 News First – Sydney

Still to come – seeing clearly – the eye-opening treatment set to help millions of Aussies

Syndicated to 25 TV stations AUS-wide:

- Ten Newcastle
- Ten Brisbane
- Ten Wollongong
- Ten Sunshine Coast
- Ten Wagga Wagga
- Ten Gold Coast
- Ten Albury
- Ten Rockhampton
- Ten Tamworth
- Ten Cairns
- Ten Mid-North Coast
- Ten Mackay
- Ten ACT
- Ten Melbourne
- Ten Ballarat
- Ten Bendigo
- Ten Albany
- Ten Gippsland
- Ten Swan Hill
- Ten Adelaide
- Ten Darwin
- Ten Shepparton
- Ten Tasmania

TV media outcomes



Channel 10 news first - Preview

December 2, 2023, 17:30

Duration: 00:06

Audience: 1,326,755

Channel 10 News First - Sydney

Still to come – seeing clearly – the eye-opening treatment set to help millions of Aussies

Syndicated to 25 TV stations AUS-wide:

- Ten Newcastle
- Ten Wollongong
- Ten Wagga Wagga
- Ten Albury
- Ten Tamworth
- Ten Mid-North Coast
- Ten ACT
- Ten Melbourne
- Ten Ballarat
- Ten Bendigo
- Ten Gippsland
- Ten Swan Hill
- Ten Shepparton
- Ten Brisbane
- Ten Bundaberg
- Ten Sunshine Coast
- Ten Gold Coast
- Ten Rockhampton
- Ten Cairns
- Ten Mackay
- Ten Perth
- Ten Albany
- Ten Adelaide
- Ten Darwin
- Ten Tasmania

TV media outcomes



Channel 10 News First - Sydney

December 2, 2023, 17:30

Duration: 02:25

Audience: 1,338,694

Channel 10 News First - Sydney

A new laser treatment designed to improve your vision beyond what's currently deemed perfect could benefit more than seven million Australians living with common eye conditions.

Featuring, A/Prof Bala, Chris, 42 & Jodie, 31

Syndicated to 25 TV stations AUS-wide:

- Ten Newcastle
- Ten Wollongong
- Ten Wagga Wagga
- Ten Albury
- Ten Tamworth
- Ten Mid-North Coast
- Ten ACT
- Ten Melbourne
- Ten Ballarat
- Ten Bendigo
- Ten Gippsland
- Ten Swan Hill
- Ten Shepparton
- Ten Brisbane
- Ten Bundaberg
- Ten Sunshine Coast
- Ten Gold Coast
- Ten Rockhampton
- Ten Cairns
- Ten Mackay
- Ten Perth
- Ten Albany
- Ten Adelaide
- Ten Darwin
- Ten Tasmania



Print media exclusive

The Saturday Telegraph print exclusive

'Evetar' turns on supervision

EXCLUSIVE

Madeleine Crittenden

Madeleine Bousamra has lived with blurred vision since she was a child, unable to drive and with an impossible dream of becoming a flight attendant.

Yet the 21-year-old's ambitions are now back on track after undergoing a revolutionary new laser eye surgery that has given patients high-definition or "super vision" – even better than the so-called "ideal" 20-20 vision.

It's helped the young Sydney woman, who was diagnosed with short-sightedness at just eight, regain her confidence – and her independence.

"Driving was really challenging. I lost all confidence in being able to drive a car safely," she said.

"I couldn't read the road signs. At night, the glare from the oncoming headlights blurred my vision so much that I couldn't identify objects on the road in front of me.

"Unlike my friends who were getting their driver's licence, I was too scared to drive, and had to rely on my parents to take me places."

The laser eye technology generates a personalised 3D model of the eye, also known as an "eyevatar", that enables eye surgeons to see how they can move a person beyond 20-20 vision.

Ophthalmologist and director of PersonalEYES Associate Professor Chandra Bala lik-

ened the procedure to having a suit tailor-made for your body, noting it's the first time laser eye surgery has been personalised to a person's exact needs.

"This technology provides the most accurate method currently available for measuring and modelling the eye," he said.

"Ten years ago, these calculations would have taken 24 hours.

"Now they take just four minutes."

The procedure permanently changed the shape of Miss Bousamra's cornea, correcting both her short-sightedness and far-sightedness issues – so much so that she is chasing her flight attendant dream.

"I feel confident to drive again, and have finally gained my independence," she said.

HOW THE NEW LASER VISION WORKS

In a healthy eye, light passes through the front of the eye and lens, allowing light to focus on the retina at a single point, creating an image.

- An abnormal eye shape and size can hinder its ability to focus light correctly.
- During the new procedure, a patient sits in front of a machine, and 500 beams of light are shone through the pupil, which allows an extremely accurate model of the eye to be generated.
- This 'eyevatar' informs an ophthalmologist on what laser treatment is needed to correct the person's vision.
- This new technology allows these calculations to be made in just four minutes.



Madeline Bousamra can see now. Picture: Sam Ruttyn

Online media outcomes

The Saturday (Daily) Telegraph exclusive



Entertainment An hour ago

From Heartbreak Kid to Underbelly and Strife – the fear that drives Alex Demetriades

It's been 30 years since Alex Dimitriades famously got his shot as The Heartbreak Kid – the role that made him and threatened to break him, all in one.

EXCLUSIVE NSW

'Super vision' laser eye tech transforms lives

A revolutionary new laser eye procedure is now available for people suffering with common eye conditions, creating vision that is even better than the so-called 'ideal' 20-20 vision.

□ 2



Basketball

Inside story: What really happened with Giddey and the young woman

Josh Giddey had a one-night stand with a girl he met at a nightclub and later found out was just 15. Almost two years later threats were made to derail his career. See how it all went down.



['Super vision' laser eye tech transforms lives](#)

The Daily Telegraph – Home page

Audience: 468,750

December 2, 2023

The Saturday (Daily) Telegraph exclusive

News

NSW [Follow](#)

EXCLUSIVE NSW 43 minutes ago

Predator Dawson's schoolgirl abuse victim settles lawsuit against state

The former schoolgirl who convicted wife killer Chris Dawson had an unlawful sexual relationship with him and has settled her case against NSW for failing to protect her in a deal worth over a million dollars.



EXCLUSIVE NSW

'Super vision' laser eye tech transforms lives

A revolutionary new laser eye procedure is now available for people suffering with common eye conditions, creating vision that is even better than the so-called 'ideal' 20-20 vision.

2



PREMIUM NSW An hour ago

Super vision for Madeleine

Madeleine Bousamra has lived with blurred vision since she was a child - but after undergoing a revolutionary new laser eye surgery she and other...



02:00

'Super vision' laser eye tech transforms lives & Super vision for Madeleine

The Daily Telegraph, The Herald Sun, The Gold Coast Bulletin, The Chronicle, The Cairns Post, The Mercury, The Geelong Advertiser, The Townsville Bulletin & The Northern Territory News – NSW page

Audience: 3,040,366

December 2, 2023

The Saturday (Daily) Telegraph exclusive

Herald Sun
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EXCLUSIVE NSW
'Super vision' laser eye tech transforms lives
A revolutionary new laser eye procedure is now available for people suffering with common eye conditions, creating vision that is even better than the so-called 'ideal' 20-20 vision.



Money An hour ago
Billionaires now inherit more than they earn
Billionaires around the world inherited more wealth than they earned through entrepreneurship over the last year, a new study has revealed.



Celebrity Life An hour ago
Star lifts lid on incest with famous dad
Singer Mackenzie Phillips has opened up about her decade-long abusive, incestuous relationship with her famous musician dad.



• LIVE Northern Territory An hour ago
Watch: Tiwi Bombers v Wanderers, Round 9 NTFL
Tiwi Bombers have blasted out of the blocks against Wanderers in their first game on their home deck this season. Watch all the action LIVE right here.



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'Super vision' laser eye tech transforms lives

The Herald Sun, The Gold Coast Bulletin, The Chronicle, The Cairns Post, The Mercury, The Geelong Advertiser, The Townsville Bulletin, The Northern Territory News & The Weekly Times – News page Audience: 1,065,683
December 2, 2023

The Saturday (Daily) Telegraph exclusive



News > NSW

EXCLUSIVE

Personalised 'eyevatar' technology creating 'super vision' better than 20/20

A revolutionary new laser eye procedure is now available for people suffering with common eye conditions, creating vision that is even better than the so-called 'ideal' 20-20 vision.



Madeleine Crittenden

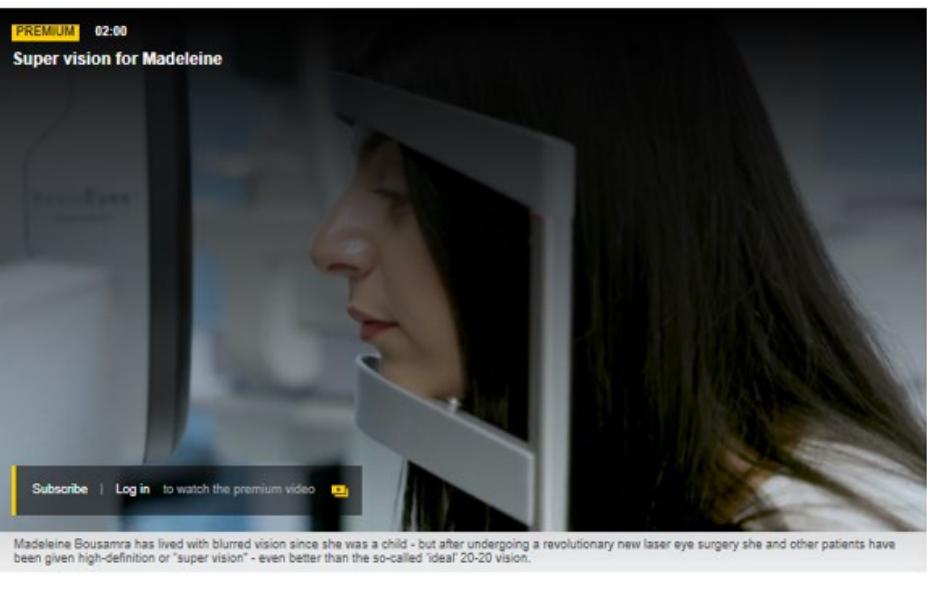
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2 min read December 2, 2023 - 5:00AM The Saturday Telegraph

4 comments



Personalised 'eyevatar' technology creating 'super vision' better than 20/20

The Daily Telegraph, The Herald Sun, The Gold Coast Bulletin, The Chronicle, The Cairns Post, The Mercury, The Geelong Advertiser, The Townsville Bulletin, The Northern Territory News & Weekly Times

Audience: 1,534,433

December 2, 2023

The Saturday (Daily) Telegraph exclusive

Madeleine Bousamra has lived with blurred vision since she was a child — she struggled to read words on a screen and directions on a street sign and never thought her dream of becoming a flight attendant would be possible.

Yet the 21-year-old's ambitions are now on track after undergoing a revolutionary new laser eye surgery that has given patients high-definition or "super vision" — even better than the so-called "ideal" 20-20 vision.

It's helped the young Sydney woman, who was diagnosed with short-sightedness in one eye and far-sightedness in the other as a child, regain her confidence — and her independence.

"Driving was really challenging. I lost all confidence in being able to drive a car safely," she said.

"I couldn't read the road signs. At night, the glare from the oncoming headlights blurred my vision so much that I couldn't identify objects on the road in front of me.



Madeleine Bousamra after undergoing eye surgery earlier in the year. Picture: Sam Ruttyn

"Unlike my friends who were getting their driver's licence, I was too scared to drive, and had to rely on my parents to take me places."

In March this year, Miss Bousamra found out about the new laser eye procedure that employs NASA Hubble Space Telescope technology.

The laser eye technology generates a personalised 3D model of the eye, also known as an "eyevatar", that enables eye surgeons to move a person beyond 20/20 vision, and in most cases achieve HD vision.

How the new laser vision works

In a healthy eye, light passes through the front of the eye and lens, allowing light to focus on the retina at a single point, creating an image.

- An abnormal eye shape and size can hinder its ability to focus light correctly.
- During the new procedure, a patient sits in front of a machine, and 500 beams of light are shone through the pupil, which allows an extremely accurate model of the eye to be generated.
- This 'eyevatar' informs an ophthalmologist on what laser treatment is needed to correct the person's vision.
- This new technology allows these calculations to be made in just four minutes.

Ophthalmologist and director of PersonalEYES Associate Professor Chandra Bala likened the procedure to having a suit tailor made for your body, noting it's the first time laser eye surgery has been personalised to a person's exact needs.

Personalised 'eyevatar' technology creating 'super vision' better than 20/20

The Daily Telegraph, The Herald Sun, The Gold Coast Bulletin, The Chronicle, The Cairns Post, The Mercury, The Geelong Advertiser, The Townsville Bulletin, The Northern Territory News & Weekly Times

Audience: 1,534,433

December 2, 2023

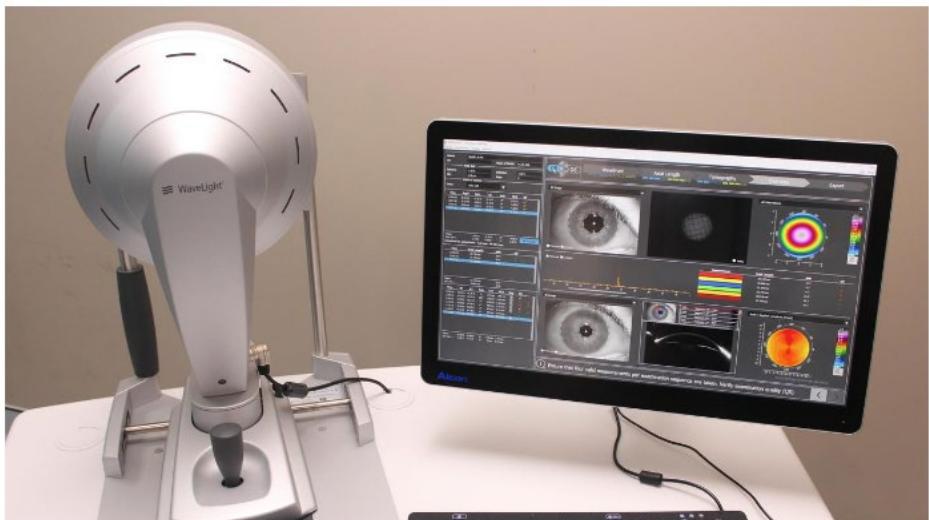
The Saturday (Daily) Telegraph exclusive

"This advanced diagnostic technology directs 500 beams of light at the eye, measuring and

collecting data from the reflected light with microscopic precision of 1/100,000 of a millimetre, to generate a personalised treatment plan," he said.

"This technology provides the most accurate method currently available for measuring and

modelling the eye.



The laser eye correction treatment employs NASA Hubble, Space telescope eye tracking technology.

"Ten years ago, these calculations would have taken 24 hours. Now they take just four minutes."

The procedure permanently changed the shape of Miss Bousamra's cornea, correcting both her short-sightedness and far-sightedness issues.

"I feel confident to drive again and have finally gained my independence," she said.

"I was quite nervous but it was so easy and there was no pain or downtime."

Professor Bala conducted independent research after completing the procedure on 200 adults, finding that 90 per cent of those who underwent the treatment achieved 20/15 vision – which is better than 20/20 vision.



Associate Professor Chandra Bala in action.

Fifty per cent of patients achieved 20/12.5 vision, while eight per cent of patients achieved 20/10 vision – known as "super vision".

Personalised 'eyevatar' technology creating 'super vision' better than 20/20

The Daily Telegraph, The Herald Sun, The Gold Coast Bulletin, The Chronicle, The Cairns Post, The Mercury, The Geelong Advertiser, The Townsville Bulletin, The Northern Territory News & Weekly Times

Audience: 1,534,433

December 2, 2023

The Saturday (Daily) Telegraph exclusive

A person with super vision can clearly see an object 20 feet ahead, while a normal person can only see it clearly at 10 feet – making it twice as good as what's classed as perfect 20/20 vision.

So incredible have the results been that Professor Bala has had to invest in new eye charts to accommodate his patients with superior vision.

"It's an amazing outcome," he said.

"We've never used the 20/10 line until now, so it's quite remarkable."

Got a news tip? Email
weekendtele@news.com.au



More Coverage



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All Comments 4

Viewing Options ▾

richard • 4 days ago

wonder if this helps the millions with failing eye sight from ageing and nee glasses to read?

1 like • Reply

Leah • 5 days ago

I would like to know the cost and the length of time that procedure would last, as I have the same problem 1short, 1 far sighted eye..? I have been considering lens refractive surgery as a solution o/s (can't afford it here in Oz). Did consider laser yrs ago but was told by the ophthalmologist that once you have laser you can't have LRS later on and that laser would only last 5-10 yrs.. ...

1 like 3 • Reply

Metin Kocasikli • 5 days ago

Tell em the price son

1 like • Reply

David1 • 5 days ago

Cost of said procedure as I am interested as I am shortsighted

1 like 5 • Reply

The Saturday (Daily) Telegraph exclusive



The Daily Telegraph logo with 'We're for you' tagline. News category: NSW. Headline: NOW PLAYING. Premium video: 02:00 Super vision for Madeleine. Video player showing a woman's profile. Call to action: Subscribe | Log in to watch the premium video. Article title: Super vision for Madeleine. Date: December 02, 2023 - 3:49PM. Source: Daily Telegraph.

The Courier Mail, Herald Sun, Gold Coast Bulletin, The Chronicle, Cairns Post, MERCURY, Geelong Advertiser, Townsville Bulletin, NT News.

Super vision for Madeleine

The Daily Telegraph, The Herald Sun, The Gold Coast Bulletin, The Chronicle, The Cairns Post, The Mercury, The Geelong Advertiser, The Townsville Bulletin, The Northern Territory News & Weekly Times Audience: 1,534,433 December 2, 2023

The image shows the homepage of LIV Health. At the top is a navigation bar with categories: ABOUT LIV, HEALTH NEWS, MEN'S HEALTH, WOMEN'S HEALTH, NUTRITION, FITNESS & BEAUTY, TRAVEL HEALTH, and SENIORS HEALTH. Below the navigation is a large banner image of a car interior with the word "health" overlaid. To the left of the main content area is a sidebar featuring a close-up image of a blue eye with a futuristic, circular interface overlaid on it. The main content area contains a news article with the following text:

HEALTH, HEALTH NEWS, RECENT POST - 20 HOURS AGO

Ray-tracing laser eye technology treatment achieving HD vision in those with myopia and astigmatism

Next-generation, personalised laser eye technology is now available at PersonalEYES, enabling more than seven million...

Below the text are two small interactive icons: a speech bubble and a share icon.

Ray-tracing laser eye technology treatment achieving HD vision in those with myopia & astigmatism

LIV Health – Health page

Audience: 100

December 6, 2023

LIV Health cont'd...



LIV

ABOUT LIV HEALTH NEWS ▾ MEN'S HEALTH ▾ WOMEN'S HEALTH ▾ NUTRITION ▾ FITNESS & BEAUTY ▾ TRAVEL HEALTH ▾ SENIORS HEALTH ▾

Health News

HEALTH, HEALTH NEWS, RECENT POST - 20 HOURS AGO

Ray-tracing laser eye technology treatment achieving HD vision in those with myopia and astigmatism

Next-generation, personalised laser eye technology is now available at PersonalEYES, enabling more than seven million...



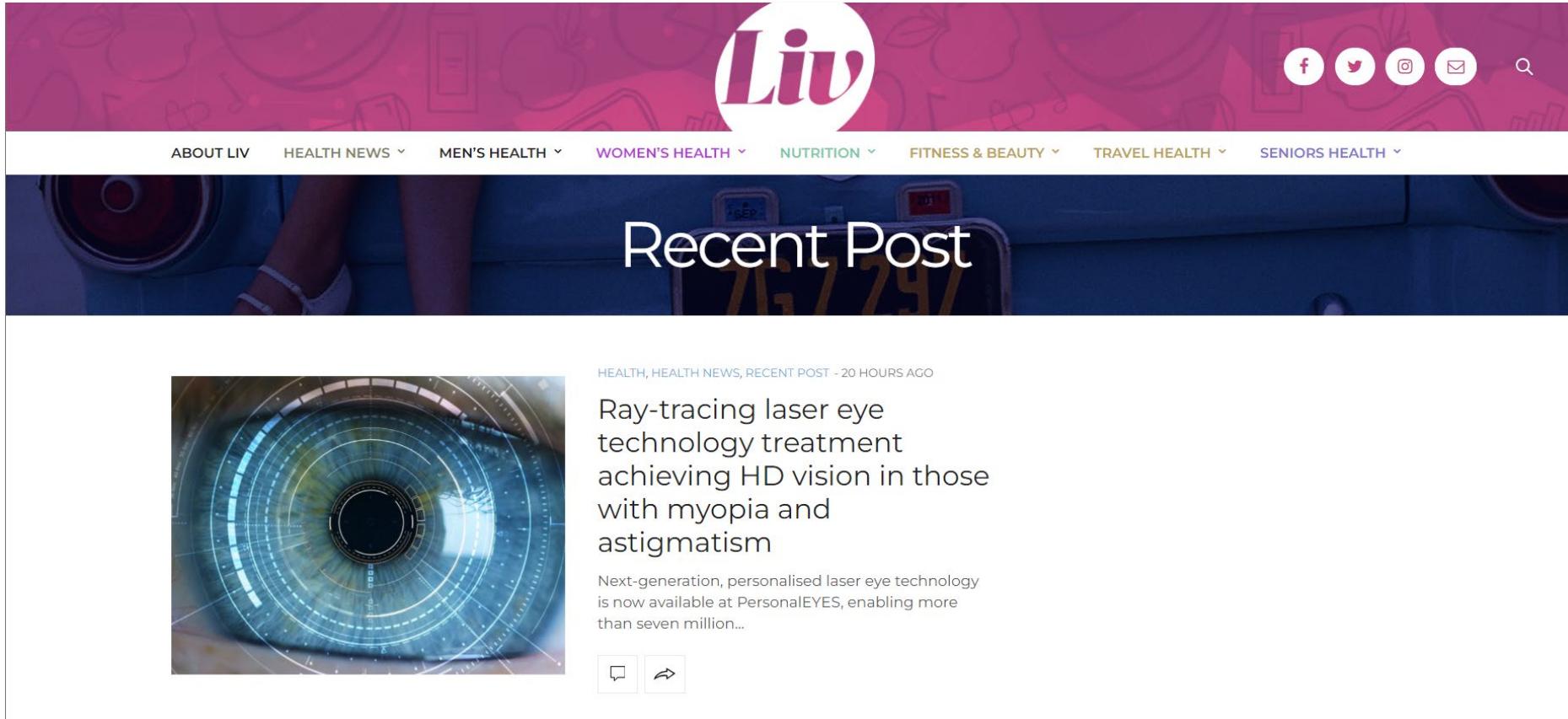
Ray-tracing laser eye technology treatment achieving HD vision in those with myopia & astigmatism

LIV Health – Health news page

Audience: 100

December 6, 2023

LIV Health cont'd...



The image is a screenshot of the LIV Health website. At the top, there is a navigation bar with categories: ABOUT LIV, HEALTH NEWS, MEN'S HEALTH, WOMEN'S HEALTH, NUTRITION, FITNESS & BEAUTY, TRAVEL HEALTH, and SENIORS HEALTH. Below the navigation bar is a banner with the text "Recent Post" overlaid on a background image of a person's arm and a digital interface. The main content area features a large image of a human eye with a futuristic, circular overlay. The post title is "Ray-tracing laser eye technology treatment achieving HD vision in those with myopia and astigmatism". The post is categorized under HEALTH and HEALTH NEWS, and it was published 20 hours ago. The text describes next-generation, personalised laser eye technology available at PersonalEYES. At the bottom of the post are two small icons for commenting and sharing.

Recent Post

HEALTH, HEALTH NEWS, RECENT POST - 20 HOURS AGO

Ray-tracing laser eye technology treatment achieving HD vision in those with myopia and astigmatism

Next-generation, personalised laser eye technology is now available at PersonalEYES, enabling more than seven million...

Ray-tracing laser eye technology treatment achieving HD vision in those with myopia & astigmatism

LIV Health – Recent post page

Audience: 100

December 6, 2023

LIV Health cont'd...

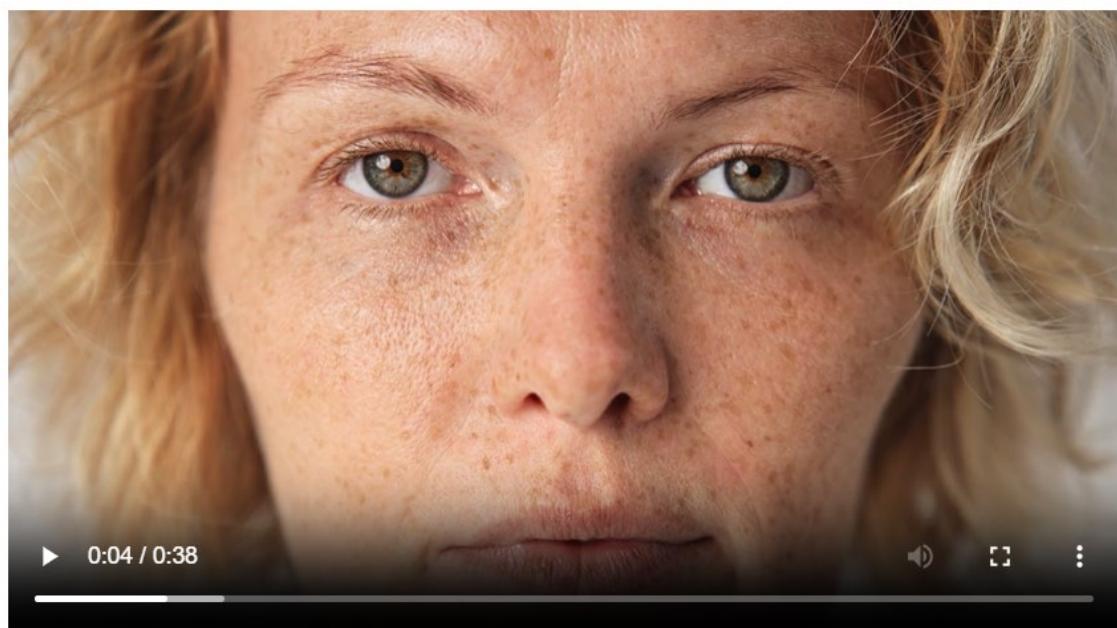


ABOUT LIV HEALTH NEWS ▾ MEN'S HEALTH ▾ WOMEN'S HEALTH ▾ NUTRITION ▾ FITNESS & BEAUTY ▾

HEALTH, HEALTH NEWS, RECENT POST

Ray-tracing laser eye technology treatment achieving HD vision in those with myopia and astigmatism

20 HOURS AGO by [LIV HEALTH BLOG](#)



Next-generation, personalised laser eye technology is now available at PersonalEYES, enabling more than seven million Australian adults living with myopia (shortsightedness) and astigmatism (eye imperfection), the opportunity to move beyond 20/20 vision, to achieve high-definition (HD) vision.

[Ray-tracing laser eye technology treatment achieving HD vision in those with myopia & astigmatism](#)

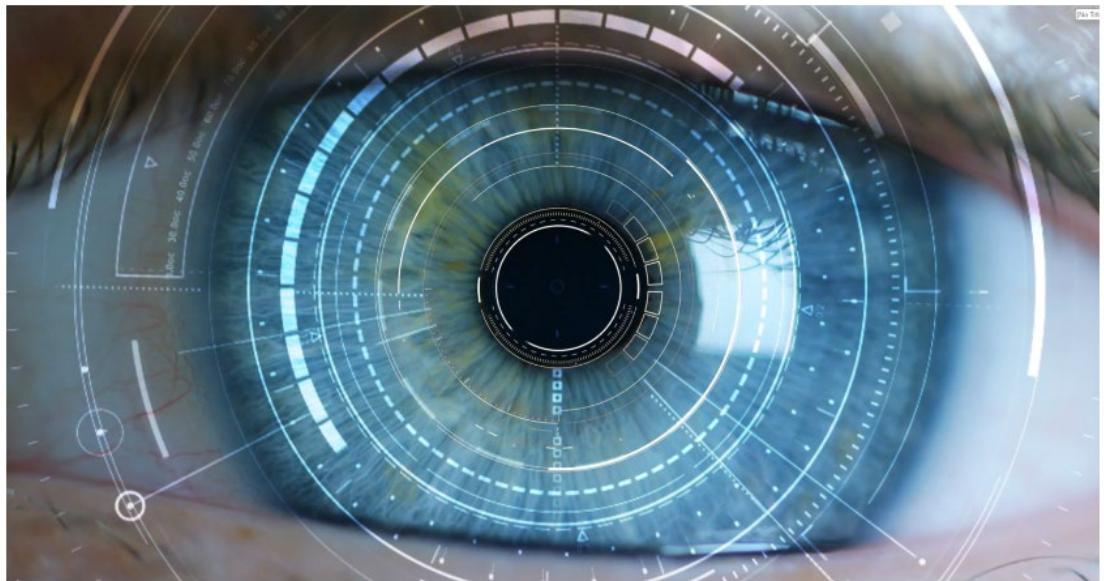
LIV Health

Audience: 100

December 6, 2023

LIV Health cont'd...

According to new Australian research published in the [Journal of Cataract and Refractive Surgery](#), the novel, ray-tracing laser eye technology is set to improve the diagnosis, treatment and outcomes of people living with these common eye conditions.



According to new research author, Ophthalmologist, and Director of PersonalEYES, Associate Professor Chandra Bala, Sydney, "for the first time, we are offering

According to new research author, Ophthalmologist, and Director of PersonalEYES, Associate Professor Chandra Bala, Sydney, "for the first time, we are offering personalised laser eye correction treatment that employs NASA Hubble Space telescope eye tracking technology, allowing the laser to move faster than the eye, simultaneously detecting, and accommodating for any eye movements like never before.

In his research, A/Prof Bala – Australia's very first to have performed the novel, diagnostic treatment (more than 1,000 ray-tracing laser eye procedures to date) – demonstrated that next-generation, ray-tracing laser eye technology enables eye surgeons to move beyond 20/20 vision, with 90 per cent of patients achieving 20/15 vision.

"This technology provides the most accurate method currently available for measuring and modelling the eye.

"Ten years ago, these calculations would have taken 24 hours, now they take just four minutes," said A/Prof Bala.

Ray-tracing laser eye technology treatment achieving HD vision in those with myopia & astigmatism

LIV Health cont'd...

Watch A/Prof Chandra Bala explaining the ray-tracing laser technology treatment here:



Clinician Scientist Ophthalmologist, Westmead Hospital, and Glaucoma Specialist, PersonalEYES, Clinical Associate Professor Andrew White, Canberra, maintains there is a broad community misconception that 20/20 vision is 'perfect vision'.

"In order to go beyond 20/20 vision, treatment must be customised to the eye. This Australian-first, next-generation, ray-tracing laser eye technology is making this possible," A/Prof White said.

Aspiring flight attendant, Maddie, 21, Sydney, lived with myopia in her right eye, and hyperopia in her left eye for more than a decade. Her poor eyesight compromised her ability to perform simple, everyday tasks, independently.

"Driving was a real challenge for me. I was constantly afraid of putting myself or others in danger because I couldn't see clearly," said Maddie.

Seeking an interim solution, Maddie visited an optometrist who prescribed her with glasses and contact lenses. However, they often caused her headaches, or made her eyes dry and irritated.

Eventually, Maddie underwent next-generation, ray-tracing laser eye technology treatment personally tailored to her eye conditions. Today, she can drive with confidence.

Ray-tracing laser eye technology treatment achieving HD vision in those with myopia & astigmatism

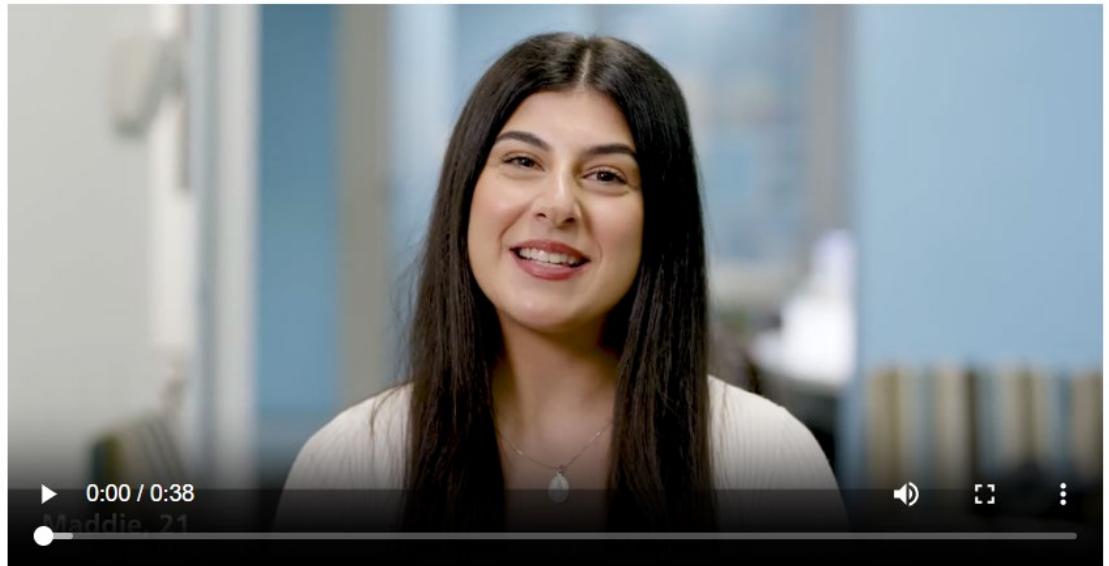
LIV Health

Audience: 100

December 6, 2023

LIV Health cont'd...

Watch Maddie, 21, Sydney reflecting on her more than decade-long struggle with poor eyesight here:



Accounting firm Managing Director, finance teacher, soccer player, and father-to-two, Chris, 42, Sydney, struggled with myopia and astigmatism for almost two decades.

"Whenever I played soccer, I would see the ball bouncing towards me, but couldn't see the ball in the distance," Chris said.

"I got glasses, which corrected my eyesight. But the novelty of glasses soon wore off.

"About a year later, I had to get contact lenses because I couldn't wear glasses while playing soccer, and I didn't like wearing glasses out to social events," said Chris.

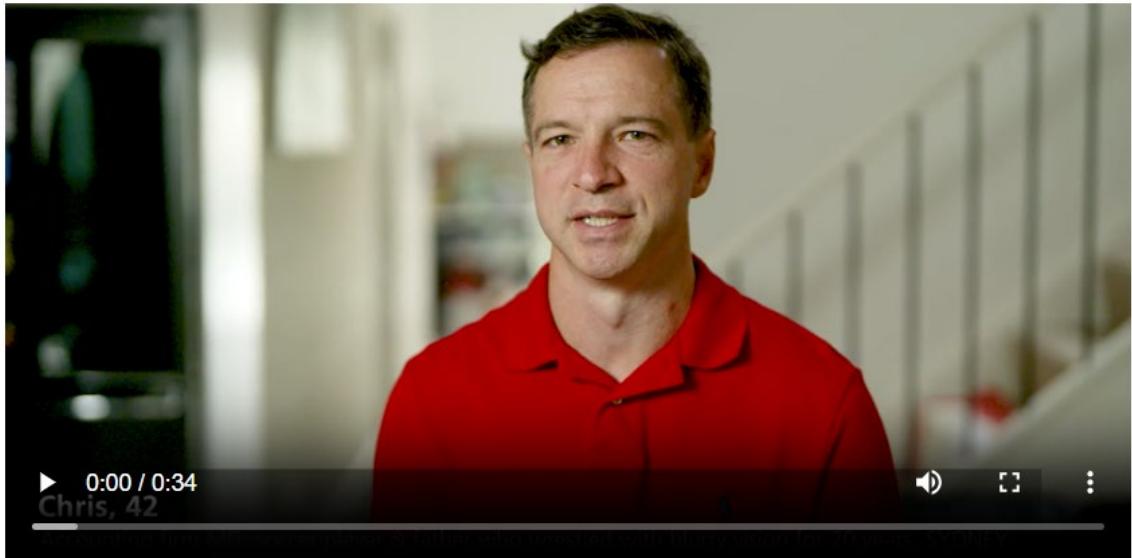
"I wanted the freedom to enjoy my outdoorsy, active lifestyle, without having to think about wearing my glasses or changing my contact lenses."

Chris underwent the ray-tracing laser eye procedure that permanently changed the shape of his cornea, effectively correcting his myopia and astigmatism. He is now enjoying an outdoorsy, active lifestyle, free from glasses and contact lenses.

Watch Chris, 42, Sydney discussing how he wrestled with blurry vision for almost two decades [here](#):

LIV Health cont'd...

Watch Chris, 42, Sydney discussing how he wrestled with blurry vision for almost two decades here:



According to 'people and culture' Human Resources (HR) specialist, and yoga and pilates enthusiast, Jodie, 31, Sydney, undergoing a permanent, corrective eyecare treatment was life-changing. Today, she no longer relies on glasses and contact lenses to see.

"I started to wear my glasses during my pilates class because I couldn't see my instructor. But they constantly slid off my face.

"Over time, my eyesight became progressively worse, and I found myself having to frequently buy new glasses, prescription sunglasses, and different strengths of contact lenses," Jodie said.

Ray-tracing laser eye technology treatment achieving HD vision in those with myopia & astigmatism

LIV Health

Audience: 100

Wednesday, December 6, 2023

LIV Health cont'd...

Story



“When I went to Europe this year, I wore my contacts every day. But my eyes felt dry and irritated, and I dreaded taking them out. It was exhausting, and I didn’t want to go through that anymore.”

Today, Maddie, Chris and Jodie are urging other Australian adults living with common eye conditions, to visit an eyecare professional without delay, to undergo an eye health assessment, and find the most effective treatment option best tailored to them, and their lifestyle.

To determine whether you, or a loved one may be suitable for ray-tracing, laser eye technology, head to personaleyes.com.au.

Ray-tracing laser eye technology treatment achieving HD vision in those with myopia & astigmatism

LIV Health

Audience: 100

Wednesday, December 6, 2023

VIVA! Health cont'd...

The screenshot shows the VIVA! Communications website. The header features the VIVA! logo with 'HEALTH + WELLNESS' and 'a GHMC partner agency'. The main navigation menu includes 'HOME', 'COVID COMMS', 'WHO', 'SERVICES', and 'AWARDS'. Below the menu, a sub-navigation bar lists 'COVID-19', 'INDUSTRY NEWS', 'HEALTH PR', 'RESEARCH & EDUCATION', 'CAMPAIGN NEWS', and 'SOCIAL MEDIA + PHARMA'. The main content area displays a large, bold title: 'Personalised 'eyevatar' ray tracing technology unlocking HD vision'. Below the title is a small 'Edit' link. At the bottom of the content area, it says 'By VIVA! Communications | December 5, 2023 | 0' with a comment icon.

Personalised 'eyevatar' ray tracing technology unlocking HD vision

By VIVA! Communications | December 5, 2023 | 0

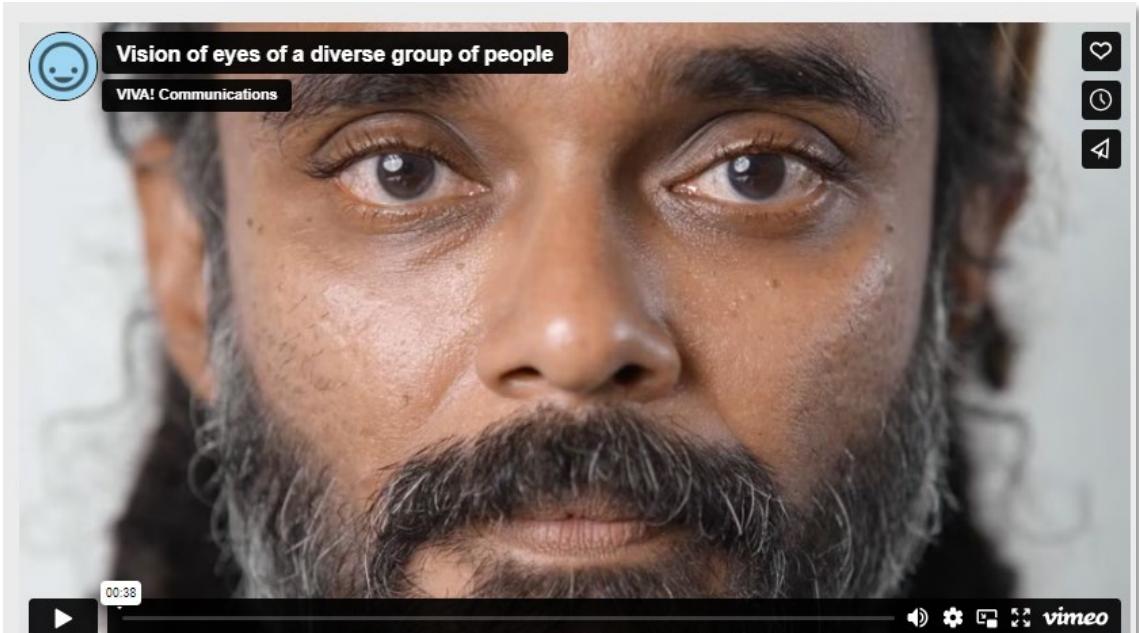
[Personalised 'eyevatar' ray tracing technology unlocking HD vision](#)

Viva! Health

Audience: 1374

Tuesday, December 5, 2023

VIVA! Health cont'd...



More than seven million Aussie adults living with the common eye conditions, myopia (shortsightedness) and astigmatism (eye imperfection), are set to benefit from the availability of next-generation, ray-tracing laser eye technology which is now available.

VIVA! Communications partnered with PersonalEYES - the Vision Specialists on Saturday, December 2, 2023 to launch the novel technology and supporting findings from new Australian research revealing the technology's potential to move beyond 20/20 vision, and in most cases, to achieve high definition or HD-vision.

Ray-tracing laser eye technology represents next-generation guided laser eye technology offering patient-customised laser eye treatment. The diagnostic tool provides the most accurate method for measuring and modelling the eye, allowing eye surgeons to accurately pinpoint abnormalities to the precision of 1/100,000 of a millimetre. By generating a personalised, multidimensional, 3D eye model, or 'eyevatar', the technology is enabling eye surgeons to move beyond 20/20 vision, and in most cases, to achieve high-definition, or HD-vision.

According to independent Australian research just published in the *Journal of Cataract and Refractive Surgery*, co-authored by PersonalEYES Ophthalmologist and Managing Director, Associate Professor Chandra Bala, Sydney, involving 200 adult patients living with myopia or astigmatism, revealed 90 per cent of those who underwent ray-tracing laser eye technology treatment achieved 20/15 vision; 50 per cent of patients achieved 10/12.5 vision; while 8 per cent of patients achieved 20/10 vision.

"This technology provides the most accurate method currently available for measuring the modelling the eye.

"Ten years ago, these calculations would have taken 24 hours. Now they take just four minutes," said A/Prof Bala.

"Given each set of eyes is unique, treatment should not be a 'one-size-fits-all' approach."

Personalised 'eyevatar' ray tracing technology unlocking HD vision

Viva! Health

Audience: 1374

Tuesday, December 5, 2023

VIVA! Health cont'd...



A/Prof Chandra Bala, New research author, Ophthalmologist & Director, PersonalEYES, SYDNEY

Clinical Scientist Ophthalmologist, Westmead Hospital, and Glaucoma Specialist, PersonalEYES, Clinical A/Prof Andrew White, Canberra, maintains there is a broad community misconception that 20/20 vision is 'perfect vision'. Rather, 20/20 vision only represents average eyesight, whereby a person can see an object clearly from 20 feet (7 metres) away. Better than 20/20 vision, for instance, 20/15 vision, means a person can view an object from 20 feet away, with the same clarity as someone 15 feet (4.5 metres) away from the same object.

"In order to go beyond 20/20 vision, treatment must be customised to the eye. This Australian-first, next-generation, ray-tracing laser eye technology is making this possible," A/Prof White said.

Accounting firm Managing Director, finance teacher, soccer player, and father-to-two, Chris, 42, Sydney, spent more than two decades wrestling with the upkeep, maintenance, and inconvenience of frequently losing and/or forgetting where he placed his prescription glasses and sunglasses, and with his vision turning foggy while wearing contact lenses.

"Initially, glasses corrected my eyesight, but their novelty soon wore off. When I got contact lenses about a year later because I couldn't wear glasses while playing soccer, I found that after a while on the field, I'd get tired, and my vision would turn foggy.

"Eventually, I didn't want to rely on glasses or contact lenses any longer. I wanted the freedom to enjoy my outdoorsy, active lifestyle, without having to think about wearing my glasses or changing my contact lenses," said Chris.



Chris, 42, Accounting firm MD, soccer player & father-to-two who wrestled with blurry vision for almost a decade, SYDNEY

Personalised 'eyevatar' ray tracing technology unlocking HD vision

Viva! Health

Audience: 1374

Tuesday, December 5, 2023

VIVA! Health cont'd...

Human Resources (HR) specialist, and yoga and pilates enthusiast, Jodie, 31, Sydney, lived with myopia for almost a decade.

having a more permanent corrective eyecare treatment was life-changing, she no longer must rely on glasses and contacts to see.

"I started to wear my glasses during my pilates class because I couldn't see my instructor. But they constantly slid off my face.

"Over time, my eyesight became progressively worse, and I found myself having to frequently buy new glasses, prescription sunglasses, and different strengths of contact lenses," Jodie said.

Chris and Jodie subsequently chose to undergo laser eye surgery that permanently changed the shape of their eyes, effectively correcting their eye conditions.

"I can now see clearly out of building windows, as well as people's faces!" Jodie said.

Today, Chris and Jodie are urging Australian adults to visit an eyecare professional for an eye health assessment without delay, and to determine the most effective treatment option best tailored to them, and their lifestyle.



Maddie, 21, Aspiring flight attendant who struggled with poor vision for more than a decade, SYDNEY

To learn more about ray-tracing laser eye treatment, head to personaleyes.com.au/losik.

Posted in Recent Post

Personalised 'eyevatar' ray tracing technology unlocking HD vision

Viva! Health

Audience: 1374

Tuesday, December 5, 2023



Radio outcomes

Radio outcomes

2SM Sydney, 05:03, December 2, 2023

- **Duration: 0:38**
- **Audience: 8,000**
- **Featuring audio grabs from A/Prof Chandra Bala**

New advanced laser eye technology has been announced for Australians living with short-sightedness & astigmatism. The procedure uses NASA's space telescope eye-tracking technology to create a digital model of each unique eye in order to prescribe tailored treatment.

Associate Professor Chandra Bala, Director of PersonalEYES, says the technology enables surgeons to achieve HD vision in most cases.

"We were involved in a trial where we treated 400 eyes with this new technology called Ray-trace technology; most people are getting 20/12.5 vision – more than 50% of the population, which used to be unheard of. We want to go well beyond 20/20 for everybody out there."

SYNDICATED TO 16 RADIO STATIONS:

• 2AD Armidale	• 2LM Lismore	• 2TM Tamworth
• 2BH Broken Hill	• 2MG Mudgee	• 2VM Moree
• 2DU Dubbo	• 2MO Gunnedah	• 4WK Toowoomba
• 2EL Orange	• 2NZ Inverell	• Triple Z Lismore
• 2GF Grafton	• 2PK Parkes	
• 2HD Newcastle	• 2RE Taree	

Radio outcomes

2SM Sydney, 07:02, December 2, 2023

- **Duration: 00:38**
- **Audience: 15,000**
- **Audio grabs from A/Prof Chandra Bala**

New advanced laser eye technology has been announced for Australians living with short-sightedness & astigmatism. The procedure uses NASA's space telescope eye-tracking technology to create a digital model of each unique eye in order to prescribe tailored treatment.

Associate Professor Chandra Bala, Director of PersonalEYES, says the technology enables surgeons to achieve HD vision in most cases.

"We were involved in a trial where we treated 400 eyes with this new technology called Ray-trace technology; most people are getting 20/12.5 vision – more than 50% of the population, which used to be unheard of. We want to go well beyond 20/20 for everybody out there."

SYNDICATED TO 16 RADIO STATIONS:

• 2AD Armidale	• 2LM Lismore	• 2TM Tamworth
• 2BH Broken Hill	• 2MG Mudgee	• 2VM Moree
• 2DU Dubbo	• 2MO Gunnedah	• 4WK Toowoomba
• 2EL Orange	• 2NZ Inverell	• Triple Z Lismore
• 2GF Grafton	• 2PK Parkes	
• 2HD Newcastle	• 2RE Taree	

Radio outcomes

2SM Sydney, 20:02, December 2, 2023

- **Duration: 00:50**
- **Audience: 11,000**
- **Audio grabs from A/Prof Chandra Bala**

New laser eye tracking & modelling technology is set to benefit the millions of Australians living with short-sightedness & astigmatism. The innovative procedure borrows eye-tracking technology from NASA to create a digital replica of each individual eye & decide on a personalised treatment.

Associate Professor Chandra Bala, Director of PersonalEYES says 10 years ago, treatment like this would have been unthinkable.

"The technology is special in that it allows us to model the eye. So, each person's eye is unique. We don't treat glasses anymore to try & get rid of them; we treat the eye to try & get rid of the glasses. So, we model the eye; it takes about four minutes to create a computational model of the eye, that is then virtually treated to find the best possible treatment to apply to the patient."

SYNDICATED TO 16 RADIO STATIONS:

• 2AD Armidale	• 2LM Lismore	• 2TM Tamworth
• 2BH Broken Hill	• 2MG Mudgee	• 2VM Moree
• 2DU Dubbo	• 2MO Gunnedah	• 4WK Toowoomba
• 2EL Orange	• 2NZ Inverell	• Triple Z Lismore
• 2GF Grafton	• 2PK Parkes	
• 2HD Newcastle	• 2RE Taree	

Radio outcomes

2SM Sydney, 23:02, December 2, 2023

- **Duration: 00:48**
- **Audience: 9,000**
- **Audio grabs from A/Prof Chandra Bala**

New laser eye tracking & modelling technology is set to benefit the millions of Australians living with short-sightedness & astigmatism. The innovative procedure borrows eye-tracking technology from NASA to create a digital replica of each individual eye & decide on a personalised treatment.

Associate Professor Chandra Bala, Director of PersonalEYES says 10 years ago, treatment like this would have been unthinkable.

"The technology is special in that it allows us to model the eye. So, each person's eye is unique. We don't treat glasses anymore to try & get rid of them; we treat the eye to try & get rid of the glasses. So, we model the eye; it takes about four minutes to create a computational model of the eye, that is then virtually treated to find the best possible treatment to apply to the patient."

SYNDICATED TO 16 RADIO STATIONS:

- 2AD Armidale
- 2BH Broken Hill
- 2DU Dubbo
- 2EL Orange
- 2GF Grafton
- 2HD Newcastle
- 2LM Lismore
- 2MG Mudgee
- 2MO Gunnedah
- 2NZ Inverell
- 2PK Parkes
- 2RE Taree
- 2TM Tamworth
- 2VM Moree
- 4WK Toowoomba
- Triple Z Lismore

Radio outcomes

Triple M Brisbane, 06:03, December 2, 2023

- **Duration: 00:31**
- **Audience: 34,000**
- **Audio grabs from A/Prof Chandra Bala**

More than 7 million Aussie adults living with common eye conditions are set to benefit from a new procedure. The laser technology creates a 3D model of the eye, allowing surgeons to know exactly what treatment is needed to correct a patient's vision. Associate Professor Chandra Bala, says it is going to be a game changer.

"People are reading smaller & smaller print. We have had to buy new eye charts because people can read even the smallest line that is available. So, we are pushing, 8 per cent of our population is getting double the vision that a 20/20 person would get."

SYNDICATED TO 1 RADIO STATION:

- B105 Brisbane



Radio outcomes

6PR Perth, 06:03, December 2, 2023

- **Duration: 0:36**
- **Audience: 13,429**
- **Audio grabs from A/Prof Chandra Bala**

More than 7 million Australian adults living with common eye conditions are set to benefit from a new treatment. Personalised 'eyevatar' technology is a new laser treatment that seeks to improve the diagnosis & outcomes of people suffering from conditions like myopia. Associate Professor Chandra Bala says the technology is a world first.

"For the first time we are able to create an 'eyevatar' of your eye so we can put in 500 beams of light, see how your eye treats it & how it deals with the eye. Then, we can virtually treat that eye & come up with the best possible treatment outcome."

SYNDICATED TO 1 RADIO STATION:

- 6iX Perth



Radio outcomes

2GB Sydney, 04:02, December 2, 2023

- **Duration:** 0:37
- **Audience:** 56,000
- **Audio grab from A/Prof Chandra Bala**

More than 7 million Australian adults living with common eye conditions could soon benefit from a new treatment. Personalised 'eyevatar' technology is a new laser treatment to treat conditions like myopia. 90 per cent of trialled patients achieved better vision.

Ophthalmologist, Associate Professor Chandra Bala says it's a treatment that seeks to improve diagnosis & outcomes.

"We've done a study where we've treated 400 eyes. We are the first in Australia to have had it, and it gives amazing Outcomes, & so we are able to improve the quantity & quality of vision to a whole new level."

SYNDICATED TO 9 RADIO STATIONS:

- 2BS Bathurst
- 2EC Bega
- 2GN Goulburn
- 2LT Lithgow
- 2QN Deniliquin
- 2XL Cooma
- 2YOU FM Tamworth
- Coast FM Gosford
- Great Lakes FM Taree



Radio outcomes



2GB Sydney, 06:32, December 2, 2023

- **Duration: 0:37**
- **Audience: 89,000**
- **Audio grab from A/Prof Chandra Bala**

More than 7 million Australian adults living with common eye conditions are set to benefit from a new treatment. Personalised 'eyevatar' technology is a new laser treatment that seeks to improve the diagnosis, treatment & outcomes of people suffering from conditions like myopia.

Ophthalmologist, Associate Professor Chandra Bala, says the technology is a world first.

"For the first time we are able to create an 'eyevatar' of your eye. So we can put in 500 beams of light & see how it deals with the eye. Then we can virtually treat that eye & come up with the best possible treatment outcome."

SYNDICATED TO 9 RADIO STATIONS:

- 2BS Bathurst
- 2EC Bega
- 2GN Goulburn
- 2LT Lithgow
- 2QN Deniliquin
- 2XL Cooma
- 2YOU FM Tamworth
- Coast FM Gosford
- Great Lakes FM Taree



Radio outcomes



2DAYFM Sydney, 07:02, December 2, 2023

- **Duration: 00:31**
- **Audience: 123,000**
- **Audio grab from A/Prof Chandra Bala**

More than 7 million Aussie adults living with common eye conditions are set to benefit from a new procedure. The laser technology creates a 3D model of the eye, allowing surgeons to know exactly what treatment is needed to correct a patient's vision. Associate Professor Chandra Bala says it's going to be a game changer.

"People are reading smaller & smaller print. We've had to buy new eye charts because people can read even the smallest line that's available. So, we're pushing, 8 per cent of our population is getting double the vision that a 20/20 person would get."

SYNDICATED TO 4 RADIO STATIONS:

- Fox FM Melbourne
- Triple M Adelaide
- Triple M Melbourne
- SAFM Adelaide



Radio outcomes



2DAYFM Sydney, 10:04, December 2, 2023

- **Duration: 00:31**
- **Audience: 305,558**
- **Audio grab from A/Prof Chandra Bala**

More than 7 million Aussie adults living with common eye conditions are set to benefit from a new procedure. The laser technology creates a 3D model of the eye, allowing surgeons to know exactly what treatment is needed to correct a patient's vision. Associate Professor Chandra Bala says it's going to be a game changer.

"People are reading smaller & smaller print. We've had to buy new eye charts because people can read even the smallest line that's available. So, we're pushing, 8 per cent of our population is getting double the vision that a 20/20 person would get."

SYNDICATED TO 4 RADIO STATIONS:

- Fox FM Melbourne
- Triple M Adelaide
- Triple M Melbourne
- SAFM Adelaide



Radio outcomes

RSN927 Melbourne, 07:03, December 2, 2023

- **Duration:** 0:37
- **Audience:** 9,000
- **Audio grab from A/Prof Chandra Bala**

More than seven million Australian adults living with common eye conditions could soon benefit from a new treatment. Personalised eyevatar technology is a new laser treatment to treat conditions like myopia. 90 per cent of trialled patients achieved better vision. Ophthalmologist Associate Professor Chandra Bala says it's a treatment that seeks to improve diagnosis & outcomes.

"We've done a study where we've treated 400 eyes. We are the first in Australia to have had it & it gives amazing outcomes & so we are able to improve the quantity & quality of vision to a whole new level."

Isentia media monitoring service confirmed story picked up from Australian Independent Radio (AIR) news program



Radio outcomes – Additional stories

The story also ran on the following radio stations:

- 2GB – newsroom confirmed that 3 grabs ran at 4:00am, 6:30am & in an afternoon news bulletin on Saturday, December 2, 2023
- Nova 96.9/Smooth FM – grabs taken from 2GB; newsroom confirmed story ran in 2 news bulletins on Saturday, December 2, 2023
- Hit 104.7 & MIX 106.3FM – newsroom confirmed grabs in 3 news bulletins on Saturday, December 2, 2023, commencing 11am



Industry news media outcomes

eyesmart

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Solutions

04/12/2023



Personalised 'eyevatar' ray
tracing technology
unlocking HD vision



Promising Trial Paves the
Way for First-Ever Eye Drop
for Diabetic Macular Edema

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Eyesmart – Product news page

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Eyesmart – Ophthalmology & optometry page

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December 4, 2023

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04 Dec 2023

Personalised 'eyevatar' ray tracing technology unlocking HD vision

More than seven million Aussie adults living with the common eye conditions, myopia and astigmatism, are set to benefit from the launch of next-generation, 'customised' laser eye technology designed to achieve high-definition (HD) vision, this Saturday, December 2, 2023.



Unveiling of the personalised, laser eye correction treatment employing NASA Hubble Space telescope eye tracking technology this Saturday, has been spearheaded by new Australian-first research revealing 90 per cent of treated patients achieved 20/15 vision (better than 20/20 vision), while 50 per cent of patients achieved 20/12.5 vision.

According to new research author, Ophthalmologist, and Director of PersonalEYES, Associate Professor Chandra Bala, Sydney, who has performed the advanced, ray-tracing laser eye treatment on more than 1,000 patients to date, this novel, diagnostic technology is poised to improve the diagnosis, treatment and outcomes for people living with myopia and astigmatism.

"The technology generates a personalised, multidimensional, 3D model of the eye, or 'eyevatar,' enabling eye surgeons to move beyond 20/20 vision, and in most cases, to achieve HD-vision." said A/Prof Bala.

"For the first time, we are now offering 'personalised' laser eye correction, employing NASA Hubble Space telescope [which measures the size of the nearest, transiting, earth-sized planet] eye tracking technology, that allows the laser to move faster than the eye, simultaneously detecting and accommodating for any eye movements like never before. This advanced diagnostic technology directs 500 beams of light at the eye, measuring and collecting data from the reflected light with microscopic precision of 1/100,000 of a millimetre, to generate a personalised treatment plan." said A/Prof Bala.

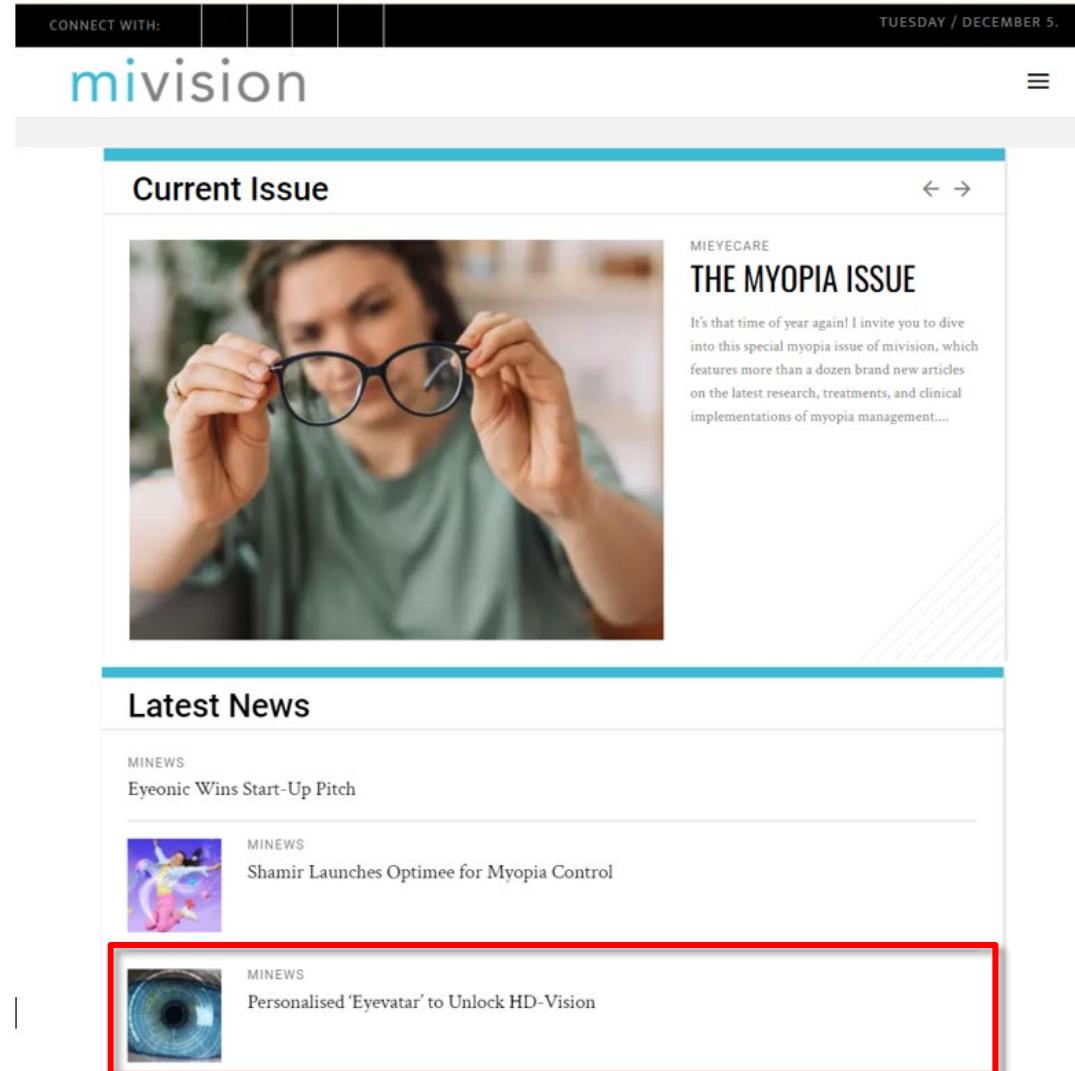
Eyesmart cont'd...

"This technology provides the most accurate method currently available for measuring and modelling the eye. Ten years ago, these calculations would have taken 24 hours. Now they take just four minutes. Given each set of eyes is unique, treatment should not be a 'one-size-fits-all' approach," A/Prof Bala said.

Clinician Scientist Ophthalmologist, Westmead Hospital, and Glaucoma Specialist, PersonalEYES, Clinical A/Prof Andrew White, Canberra, maintains there is a broad community misconception that 20/20 vision is 'perfect vision'. It is rather, 'average' eyesight that 90 per cent of patients who undergo standard LASIK Surgery for myopia can achieve.

"In order to go beyond 20/20 vision, treatment must be customised to the eye. This Australian-first, next-generation, ray-tracing laser eye technology is making this possible. The technology offers Australian adults living with common eye conditions, the opportunity to throw away their glasses and contact lenses for good, and to potentially, save money in the long-term," A/Prof White said.

Reference: Bala, C & He, G. Ray-tracing-guided myopic LASIK: real-world clinical outcomes. *J Cataract Refract Surg.* 49 (11), 1140-1146.



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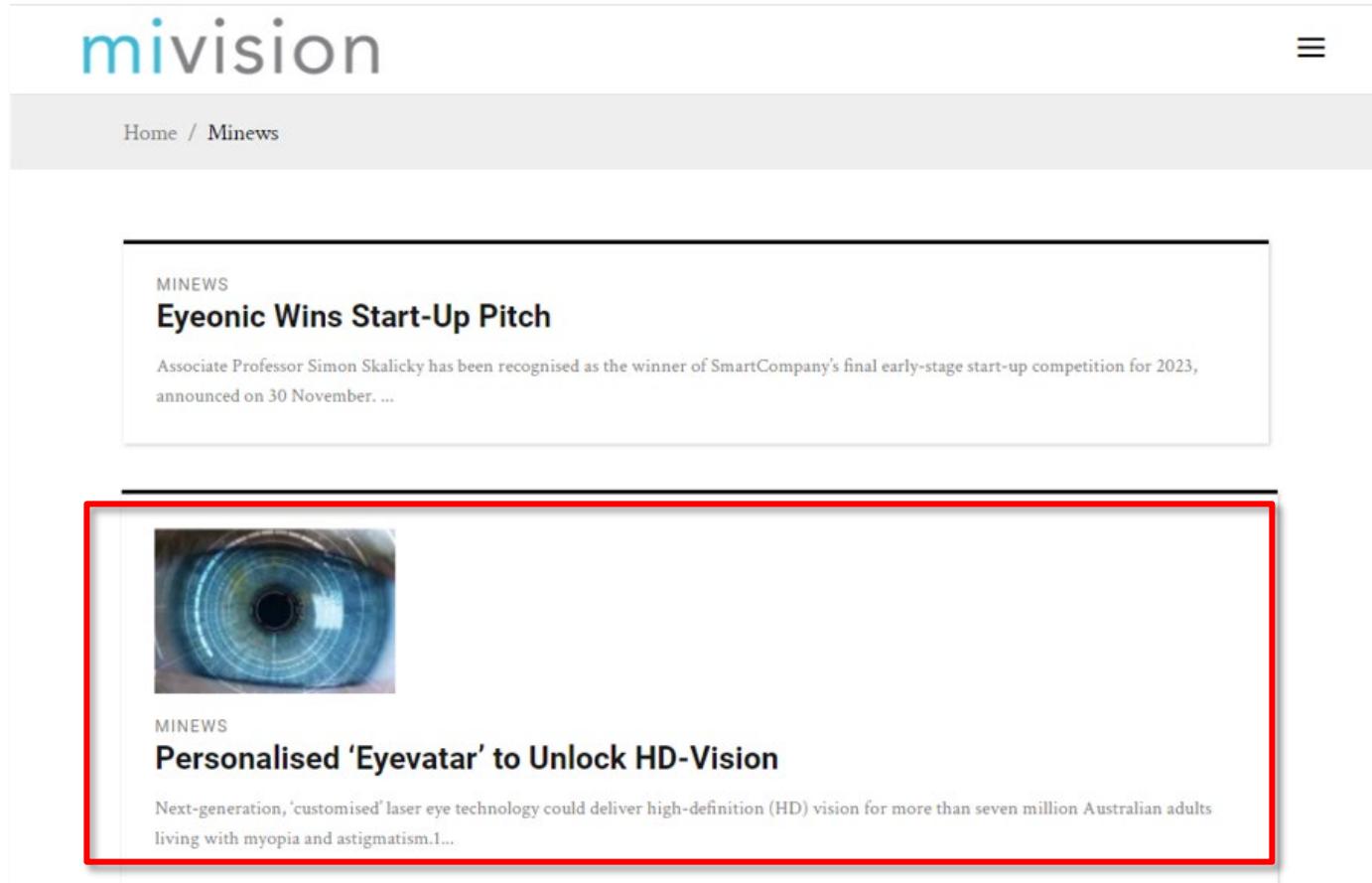
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Next-generation, 'customised' laser eye technology could deliver high-definition (HD) vision for more than seven million Australian adults living with myopia and astigmatism.1...

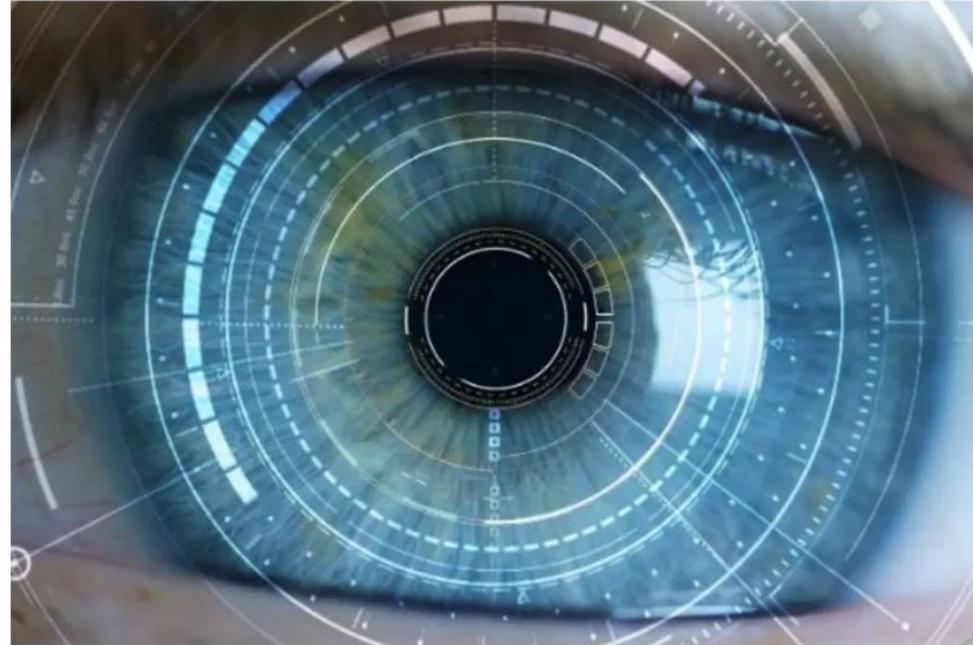
Personalised 'Eyevatar' to unlock HD-Vision

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Audience: 43,000

December 5, 2023

Personalised 'Eyevatar' to Unlock HD-Vision



Ninety per cent of adult patients achieve '20/15' vision or more with eyevatar

Mivision cont'd...

Next-generation, 'customised' laser eye technology could deliver high-definition (HD) vision for more than seven million Australian adults living with myopia and astigmatism.¹

The personalised, laser eye correction treatment, launched in Australia on the first weekend of December, employs NASA telescope eye tracking technology.

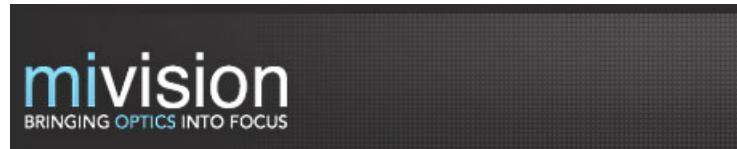
It has been spearheaded by Australian-first research revealing 90% of treated patients achieved 20/15 vision (better than 20/20 vision), while 50% of patients achieved 20/12.5 vision.²

“

38-40% of those who underwent ray-tracing guided laser eye technology treatment (are) seeing one line or more on an eye chart better than what they ever did with glasses

Associate Professor Chandra Bala, research author, ophthalmologist, and Director of PersonalEYES in Sydney, who has performed more than 1,000 ray-tracing laser eye procedures to date, said the novel technology is poised to improve the diagnosis, treatment and outcomes for people living with myopia and astigmatism.

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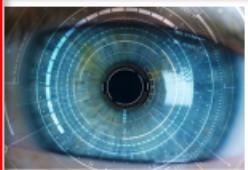
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Associate Professor Simon Skalicky has been recognised as the winner of SmartCompany's final early-stage start-up competition for 2023, announced on 30 November. Assoc/Prof...[Read](#)

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Next-generation, 'customised' laser eye technology could deliver high-definition (HD) vision for more than seven million Australian adults living with myopia and...[Read](#)

[Peer Reviewed Journal Recognises Specsavers Glaucoma Data](#)

After many years of scrutiny and refinement, a peer reviewed article featuring Specsavers' glaucoma data has been published in the Journal of Glaucoma, a renowned scientific journal for glaucoma research. The data proves that optometrists employing optical coherence tomography (OCT), as a...[Read](#)

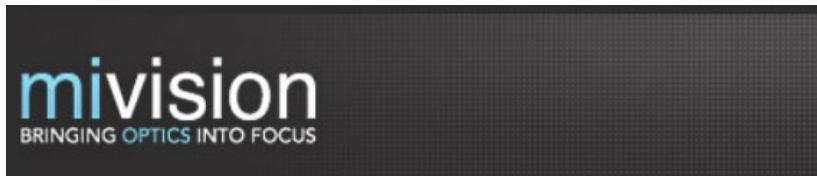
Personalised 'Eyevatar' to unlock HD-Vision

Mivision – Ophthalmology eDM

Audience: 41,900

December 5, 2023

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A new review of real-world data on the use of the diabetes drug semaglutide has offered some reassuring news about its impact on vision loss. While previous studies have found a link between a rapid improvement in glucose control and the risk of worsening diabetic retinopathy (DR), the new research shows...[Read](#)



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Audience: 41,900

December 5, 2023

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"For the first time, we are now offering 'personalised' laser eye correction, employing NASA Hubble Space telescope (which measures the size of the nearest, transiting, earth-sized planet) eye tracking technology, that allows the laser to move faster than the eye, simultaneously detecting and accommodating for any eye movements like never before.

"This advanced diagnostic technology directs 500 beams of light at the eye, measuring and collecting data from the reflected light with microscopic precision of 1/100,000 of a millimetre, to generate a personalised treatment plan,"² said Assoc/Prof Bala. "This technology provides the most accurate method currently available for measuring and modelling the eye."

Assoc/Prof Bala said calculations that would have taken 24 hours ten years ago now take just four minutes.

"Given each set of eyes is unique, treatment should not be a 'one-size-fits-all' approach," he said.

Assoc/Prof Bala's independent research performed on 200 adult patients (400 eyes) living with myopia and astigmatism, from his everyday clinical practice, revealed 90% of those who underwent ray-tracing laser eye technology treatment achieved 20/15 vision (better than 20/20 vision); 50% of patients achieved 20/12.5 vision; while 8% of patients achieved 20/10 vision. Moreover, 98% of patients reported feeling 'completely satisfied' with the treatment, with between 38-40% of those who underwent ray-tracing guided laser eye technology treatment seeing one line or more on an eye chart better than what they ever did with glasses.²

Watch the video [here](#).



Personalised 'Eyevatar' Ray Tracing Technology Unlocking HD Vision

90% of Adult Patients Achieving '20/15' Vision
or More
with Next-Generation Laser Eye Treatment:
NEW AUS RESEARCH

More than seven million Aussie adults living with the common eye conditions, myopia (shortsightedness) and astigmatism (eye imperfection)¹ are set to benefit from the availability of next-generation, customised laser eye technology.

According to new Australian research published in the [Journal of Cataract & Refractive Surgery](#), next-generation, ray-tracing guided laser eye technology generates a personalised, multidimensional, 3D eye model, or 'eyevatar', enabling eye surgeons to

Eyetalk cont'd...

move beyond 20/20 vision⁴, and in most cases, to achieve high-definition, or HD-vision.²

The ray-tracing technology 'eyevatar': <https://vimeo.com/888947368/86a4db5113?share=copy>

New research author, Ophthalmologist, and Director of PersonalEYES, Associate Professor Chandra Bala, Sydney – **Australia's first to have performed the procedure (more than 1,000 ray-tracing laser eye procedures to date)** – said the novel technology is poised to improve the diagnosis, treatment and outcomes for people living with myopia and astigmatism.

"For the first time, we are now offering '**personalised**' **laser eye correction**, employing **NASA Hubble Space telescope** [which measures the size of the nearest, transiting, earth-sized planet] **eye tracking technology**, that allows the laser to move faster than the eye, simultaneously detecting and accommodating for any eye movements like never before.

"This advanced diagnostic technology directs 500 beams of light at the eye, measuring and collecting data from the reflected light with microscopic precision of 1/100,000 of a millimetre, to generate a personalised treatment plan,"² said A/Prof Bala.

"This technology provides the most accurate method currently available for measuring and modelling the eye."

"Ten years ago, these calculations would have taken 24 hours. Now they take just **four minutes**," A/Prof Bala said.

"Given each set of eyes is unique, treatment should not be a 'one-size-fits-all' approach."

A/Prof Chandra Bala, new research author, Ophthalmologist & Director, PersonalEYES:
<https://vimeo.com/890192774/af6eb1210d?share=copy>

A/Prof Bala's independent research performed on 200 adult patients (400 eyes) living with myopia and astigmatism, from his everyday clinical practice, revealed **90 per cent** of those who underwent ray-tracing laser eye technology treatment achieved **20/15 vision (better than 20/20 vision)**; **50 per cent of patients achieved 20/12.5 vision**; while **8 per cent of patients achieved 20/10 vision**. Moreover, **98 per cent of patients reported feeling 'completely satisfied' with the treatment, with between 38-40 per cent of those who underwent ray-tracing guided laser eye technology treatment seeing 1 line or more on an eye chart better than what they ever did with glasses.²**

Clinician Scientist Ophthalmologist, Westmead Hospital, and Glaucoma Specialist, PersonalEYES, Clinical A/Prof Andrew White, Canberra, maintains there is a broad community misconception that 20/20 vision is 'perfect vision'. It is rather, 'average' eyesight that 90 per cent of patients who undergo standard LASIK Surgery for myopia can achieve.³



"In order to go beyond 20/20 vision, treatment must be customised to the eye. This Australian-first, next-generation, ray-tracing laser eye technology is making this possible.²

Eyetalk cont'd...

"The technology offers Australian adults living with common eye conditions, the opportunity to throw away their glasses and contact lenses for good, and to potentially, save money in the long-term,"³ A/Prof White said.

Accounting firm Managing Director, finance teacher, soccer player, and father-to-two, Chris, 42, Sydney, lived with myopia and astigmatism for almost 20 years. Despite the many inconveniences he faced with wearing, frequently misplacing, losing and/or breaking his prescription glasses and having to get them fixed, and his eyes drying up with contact lenses, for almost two decades Chris failed to seek a permanent solution.

Chris wrestled with the upkeep, maintenance, and inconvenience of frequently losing, and/or forgetting where he placed his prescription glasses and sunglasses, and with his vision turning foggy while wearing contact lenses.

"Initially, glasses corrected my eyesight, but their novelty soon wore off. When I got contact lenses about a year later because I couldn't wear glasses while playing soccer, I found that after a while on the field, I'd get tired, and my vision would turn foggy.

"Eventually, I didn't want to rely on glasses or contact lenses any longer. I wanted the freedom to enjoy my outdoorsy, active lifestyle, without having to think about wearing my glasses or changing my contact lenses," said Chris.

Chris subsequently underwent laser eye surgery that permanently changed the shape of his cornea, effectively correcting his myopia and astigmatism.

Today, Chris is urging Australian adults to visit an eyecare professional for an eye health assessment without delay, and to determine the most effective treatment options best tailored to them.

Chris, 42, Accounting firm MD, soccer player & father-to-two who wrestled with blurry vision for almost two decades, Sydney: <https://vimeo.com/890192847/580f238ad9?share=copy>

To find out whether you are suitable for ray-tracing guided laser eye technology, or to learn more, head to www.personaleyes.com.au

About PersonalEYES

PersonalEYES – The Vision Specialists – is Australia's first company to offer ray-tracing guided laser eye technology treatment. With 10 clinics in Sydney, regional New South Wales and Canberra, PersonalEYES offers comprehensive, accessible, and personalised eye treatments, including a 'lifetime of vision' patient care program.

About Myopia and Astigmatism

Myopia, also known as short-sightedness, is a common eye condition that makes distant objects appear blurry. In myopic eyes, light fails to focus on the retina, and instead, focuses on the front of the retina, which may be due to enlarged eyes or thick lenses.⁴ **Currently, 6.3 million Australians are living with myopia.¹**

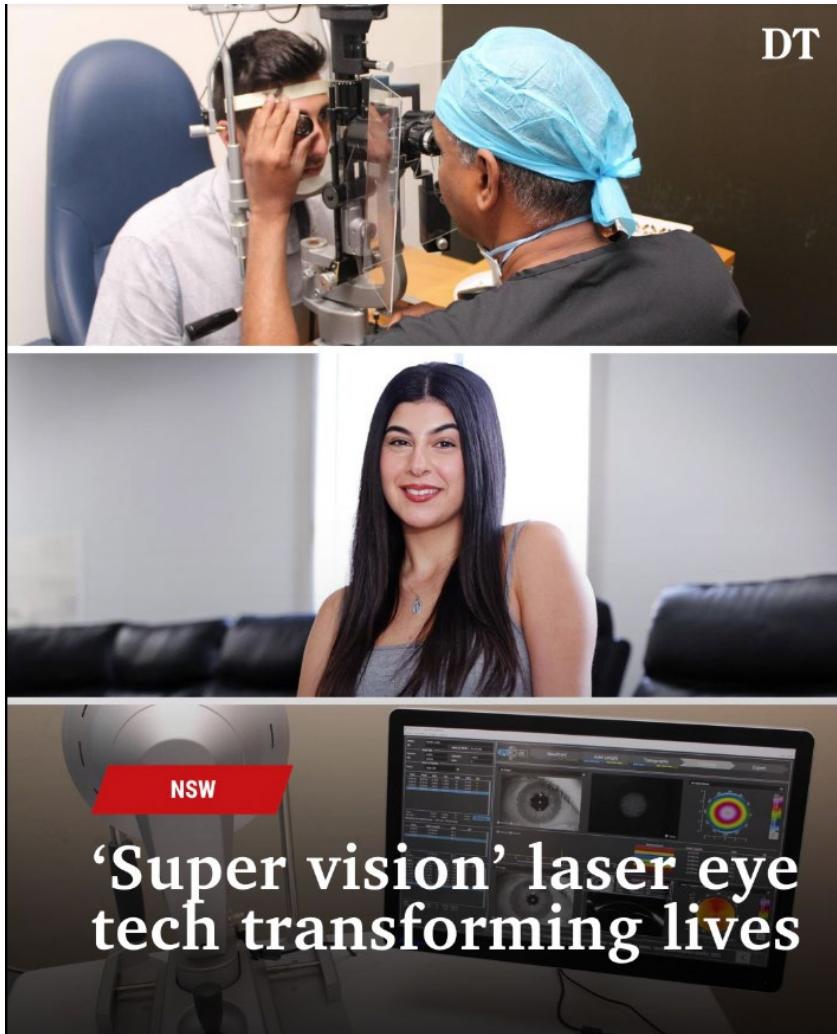
Astigmatism is a common eye condition in which vision is blurry or distorted.⁵ Astigmatism occurs when the front surface of the eye (cornea) or the lens, is misshapen, causing the light to bend differently as it enters the eye.⁵ **Currently, 1.4 million Australians are living with astigmatism.¹**

Myopia and astigmatism share similar symptoms, including squinting to see clearly, eye strain, blurry vision, headaches, and in cases of astigmatism, having trouble seeing at night.⁴⁻⁵



Social media outcomes

Social media outcomes



Daily Telegraph
2 December at 15:30 ·  

A revolutionary new laser eye procedure is now available for people suffering with common eye conditions, creating vision that is even better than the so-called 'ideal' 20-20 vision. 
<https://bit.ly/3R6E7OZ>

   7

2 

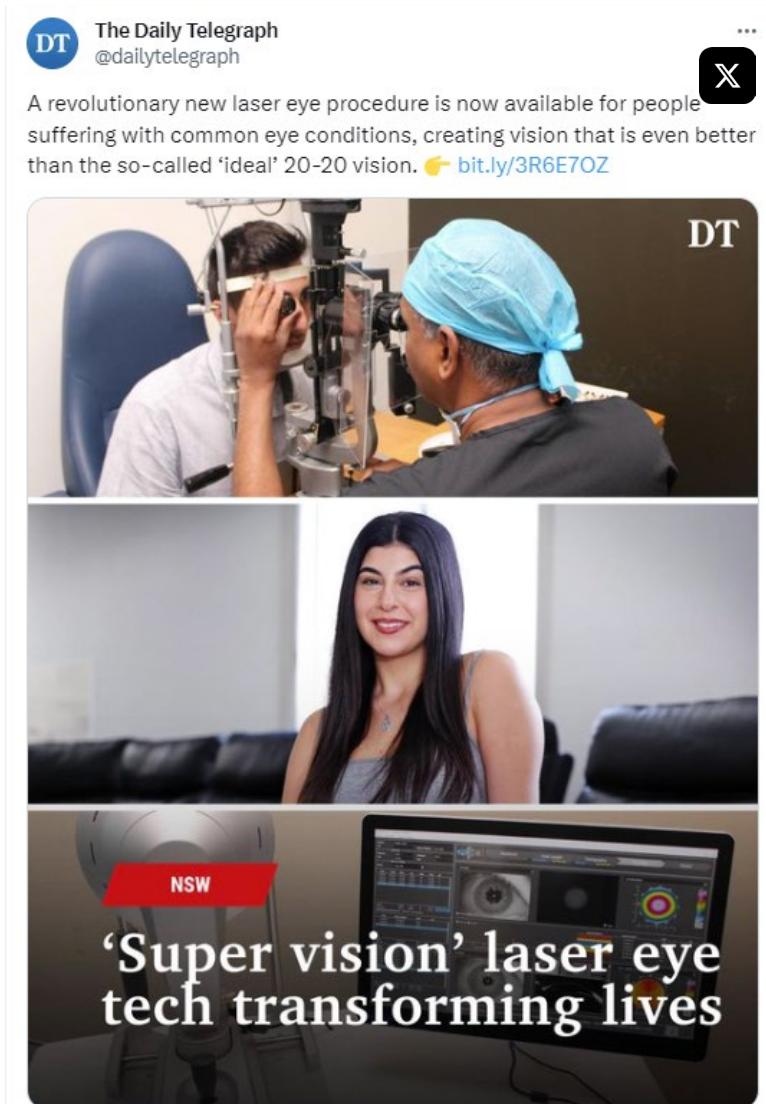
A revolutionary new laser eye procedure is now available for people suffering with common eye conditions

The Daily Telegraph – Facebook

Audience: 1,300,000

December 2, 2023

Social media outcomes



A revolutionary new laser eye procedure is now available for people suffering with common eye conditions

The Daily Telegraph – Twitter

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December 2, 2023

Social media outcomes



Laser Eye Treatment Breakthrough | 10 News First

10 News First Sydney 
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 Lesley Palma
It works. 

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"Most relevant" is selected, so some comments may have been filtered out.

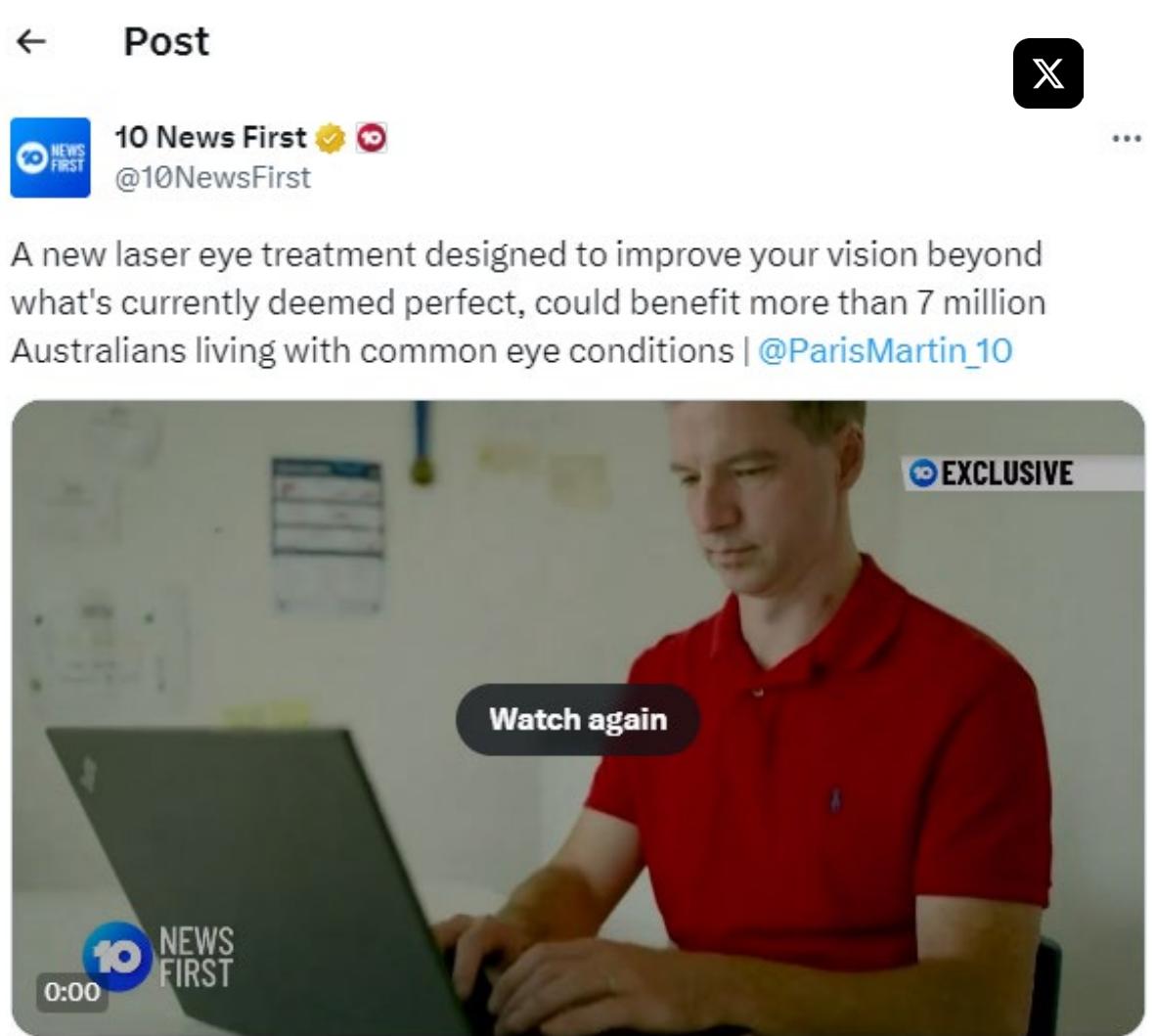
A new laser eye treatment designed to improve your vision beyond what's currently deemed perfect

Channel 10 News First Sydney - Facebook

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[A new laser eye treatment designed to improve your vision beyond what's currently deemed perfect](#)

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EYESMART.COM.AU
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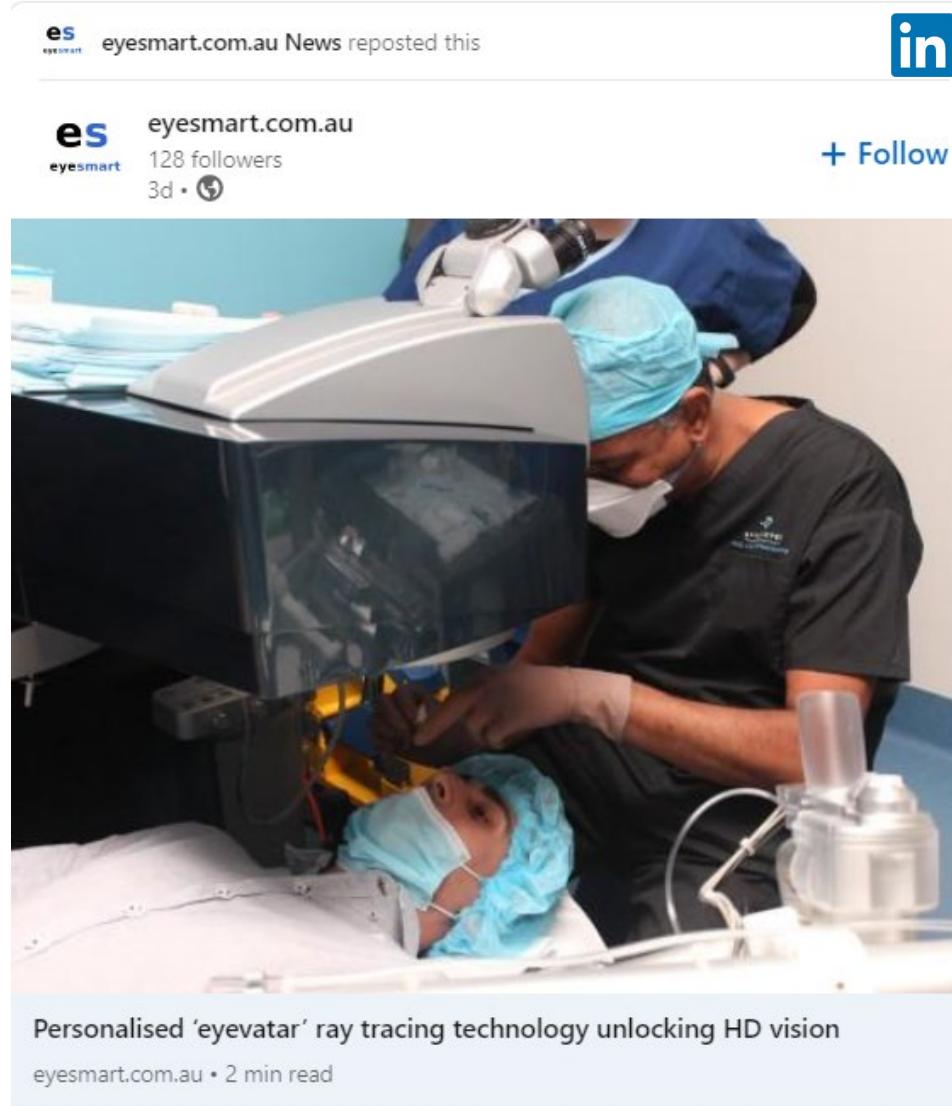
[Personalised 'eyevatar' ray tracing technology unlocking HD vision](#)

Eyesmart.com.au - Facebook

Audience: 1,200

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Social media outcomes



[Personalised 'eyevatar' ray tracing technology unlocking HD vision](#)

Eyesmart.com.au News - LinkedIn

Audience: 171

December 4, 2023

Social media outcomes



eyesmart.com.au News
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...

Personalised 'eyevatar' ray tracing technology unlocking HD vision



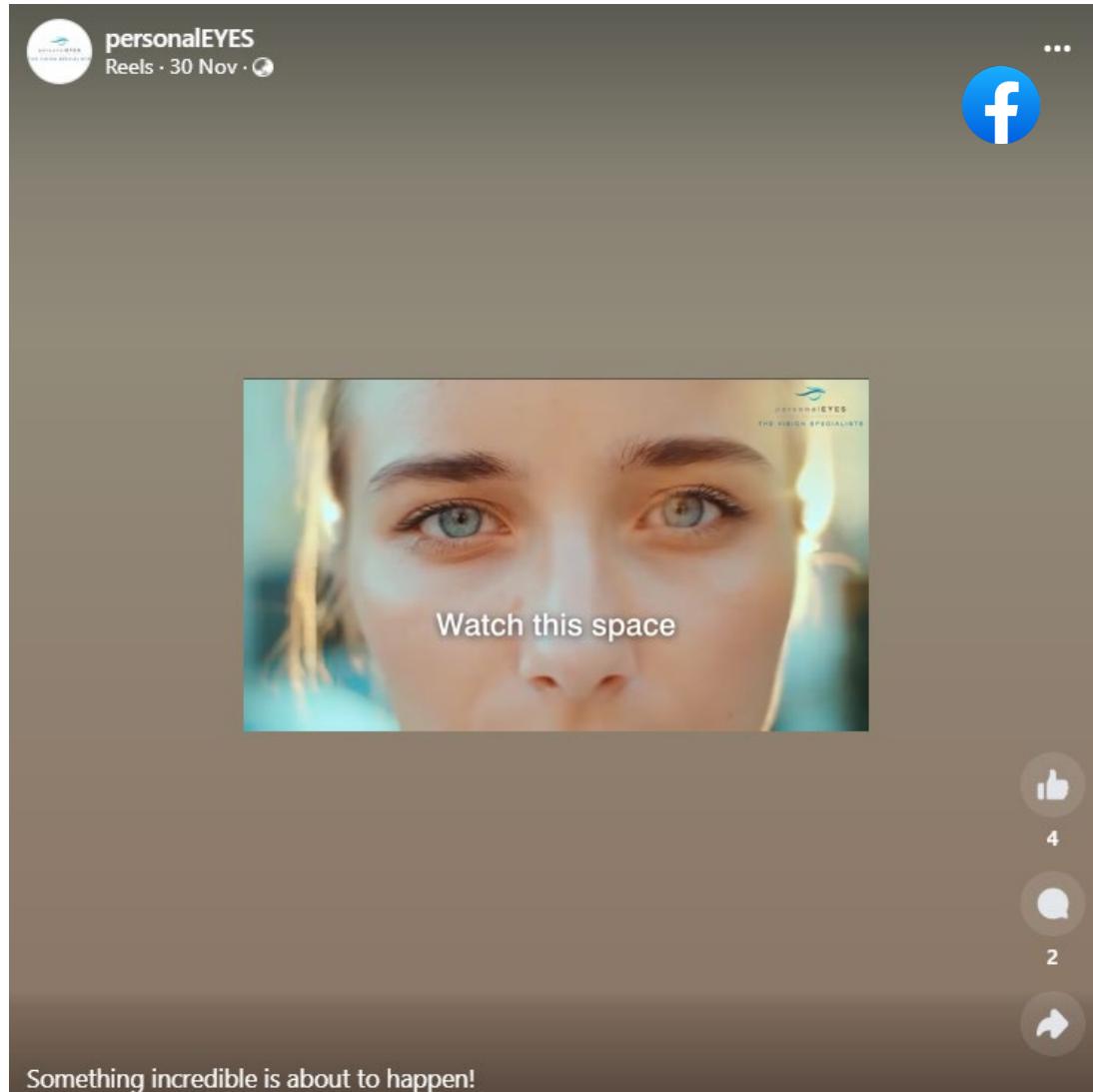
[Personalised 'eyevatar' ray tracing technology unlocking HD vision](#)

Eyesmart.com.au News – Twitter

Audience: 1, 759

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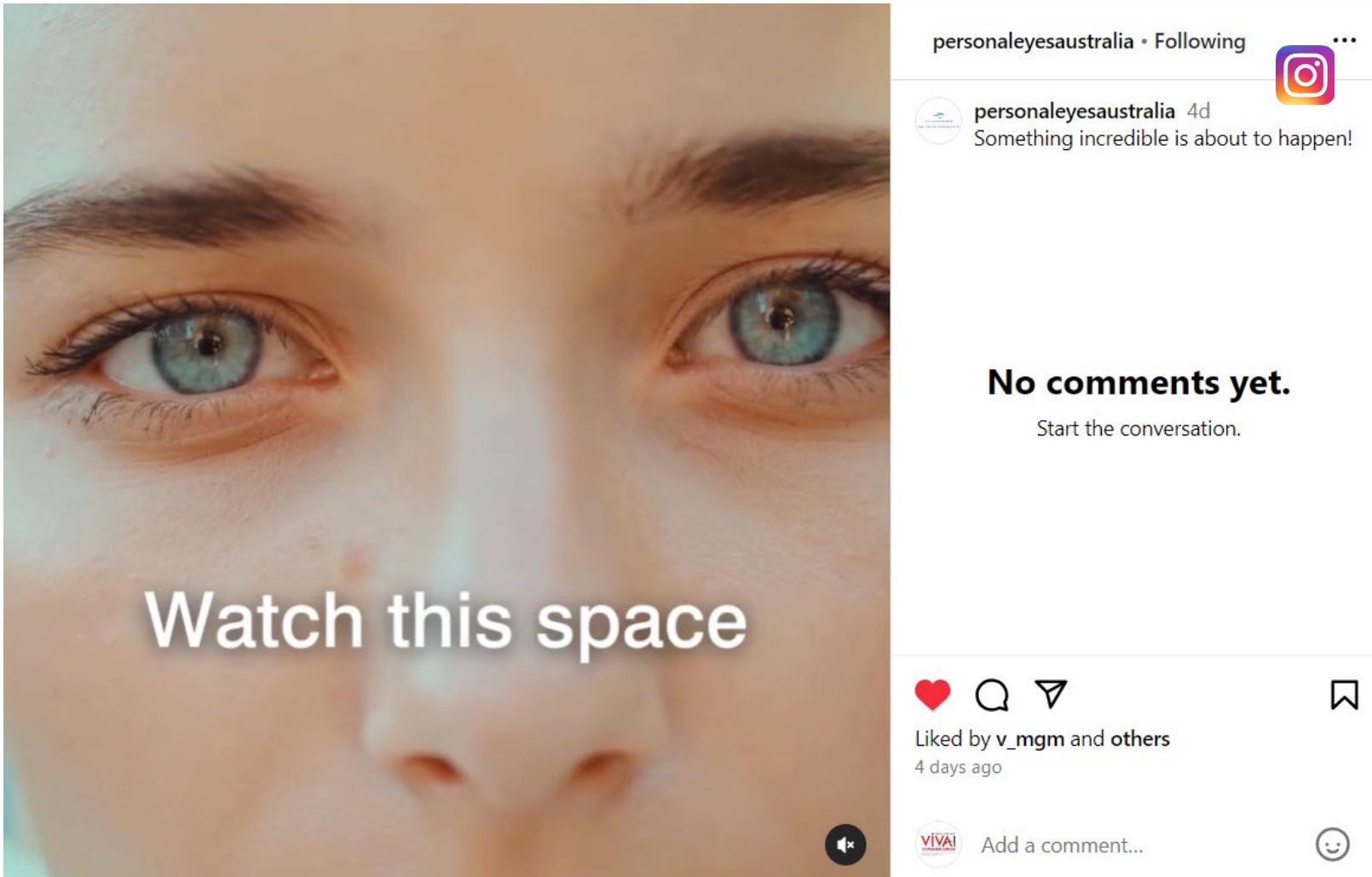
PersonalEYES – Facebook

Audience: 2,500

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Social media outcomes

PersonalEYES - Instagram



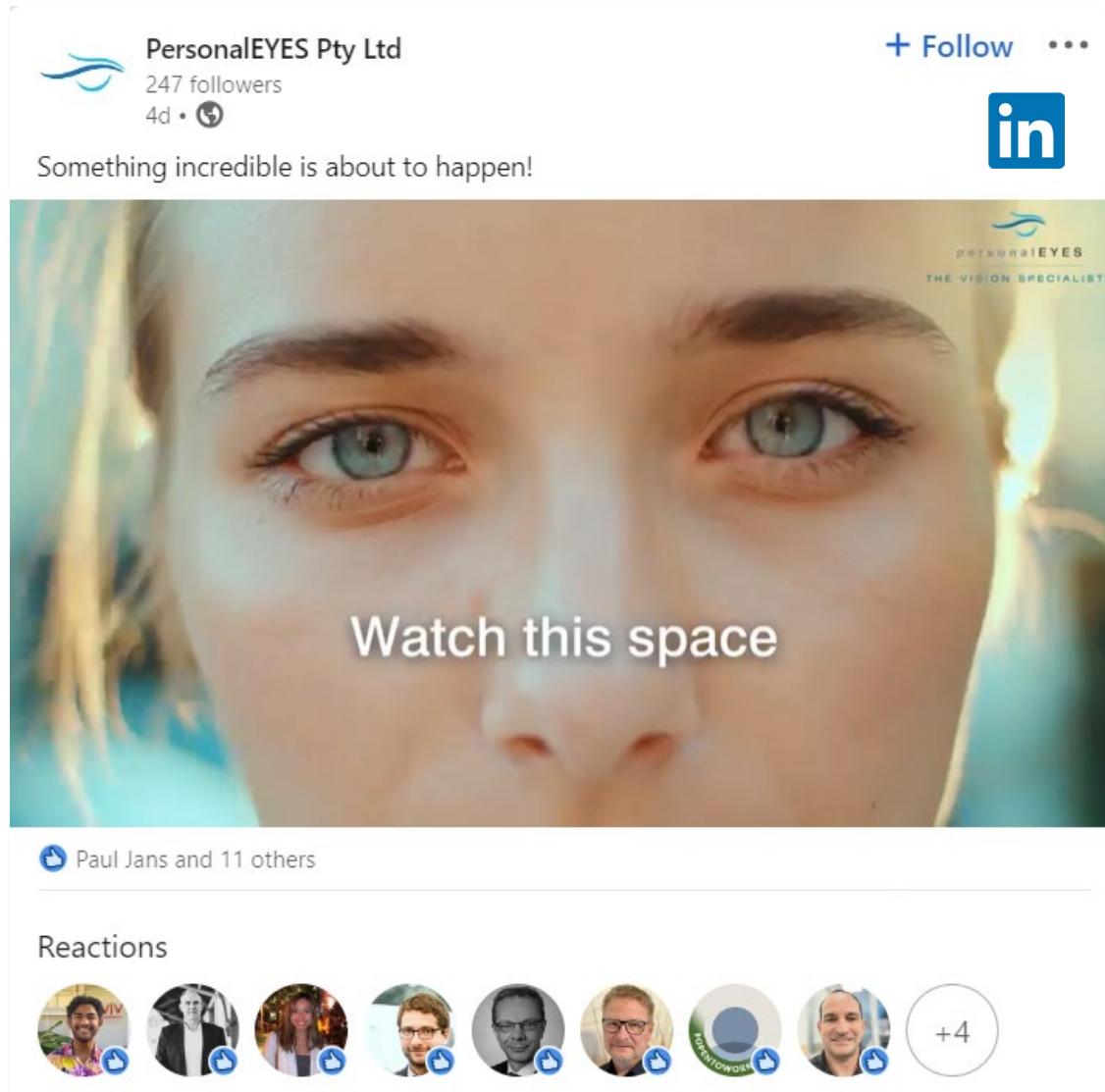
Something incredible is about to happen!

PersonalEYES – Instagram

Audience: 387

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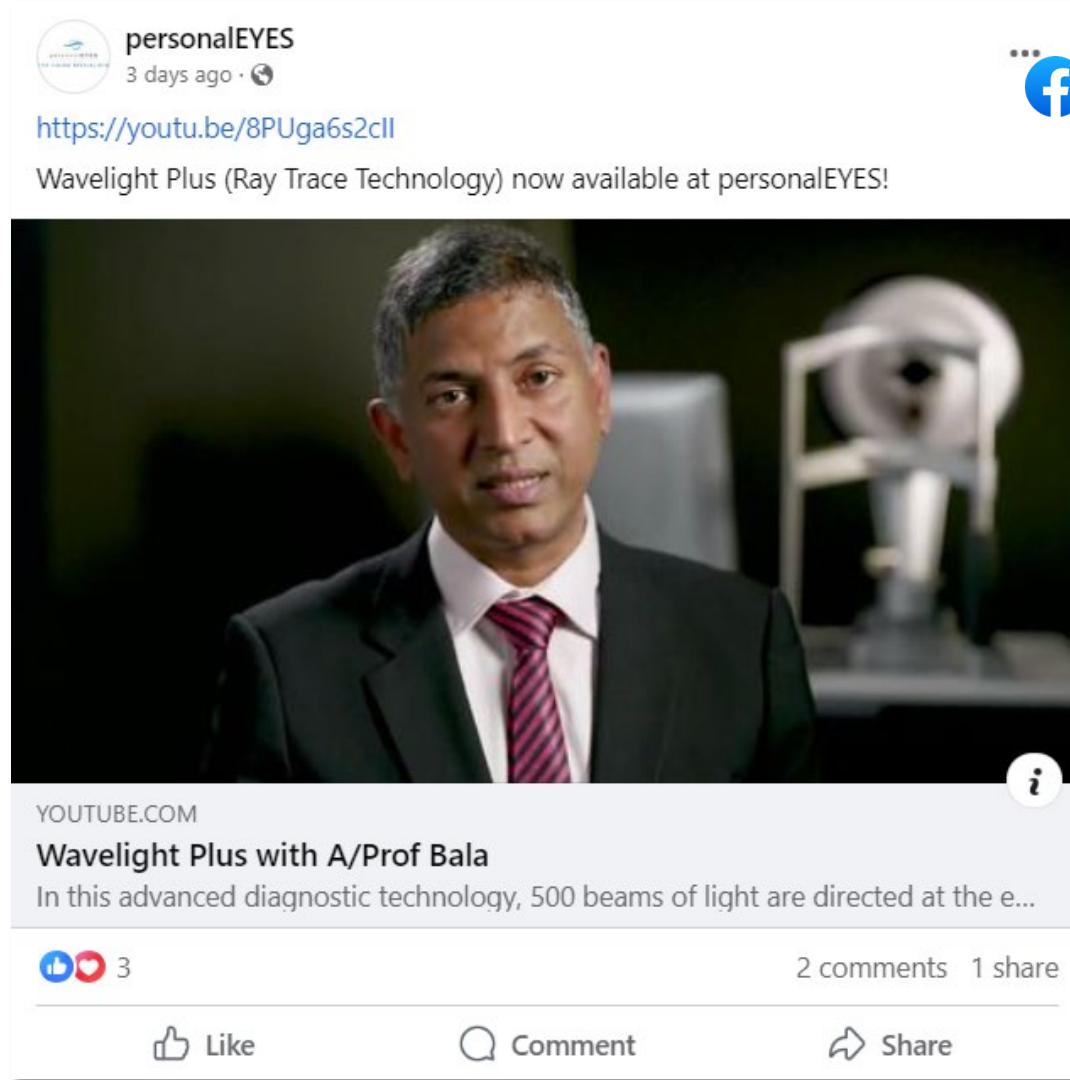
Something incredible is about to happen!

PersonalEYES – LinkedIn

Audience: 251

November 30, 2023

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Wavelight Plus (Ray Trace Technology) now available at personalEYES!

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247 followers
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Wavelight Plus (Ray Trace Technology) now available at personalEYES!



Wavelight Plus with A/Prof Bala
[youtube.com](https://www.youtube.com)

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Wavelight Plus with Dr Chandra Bala



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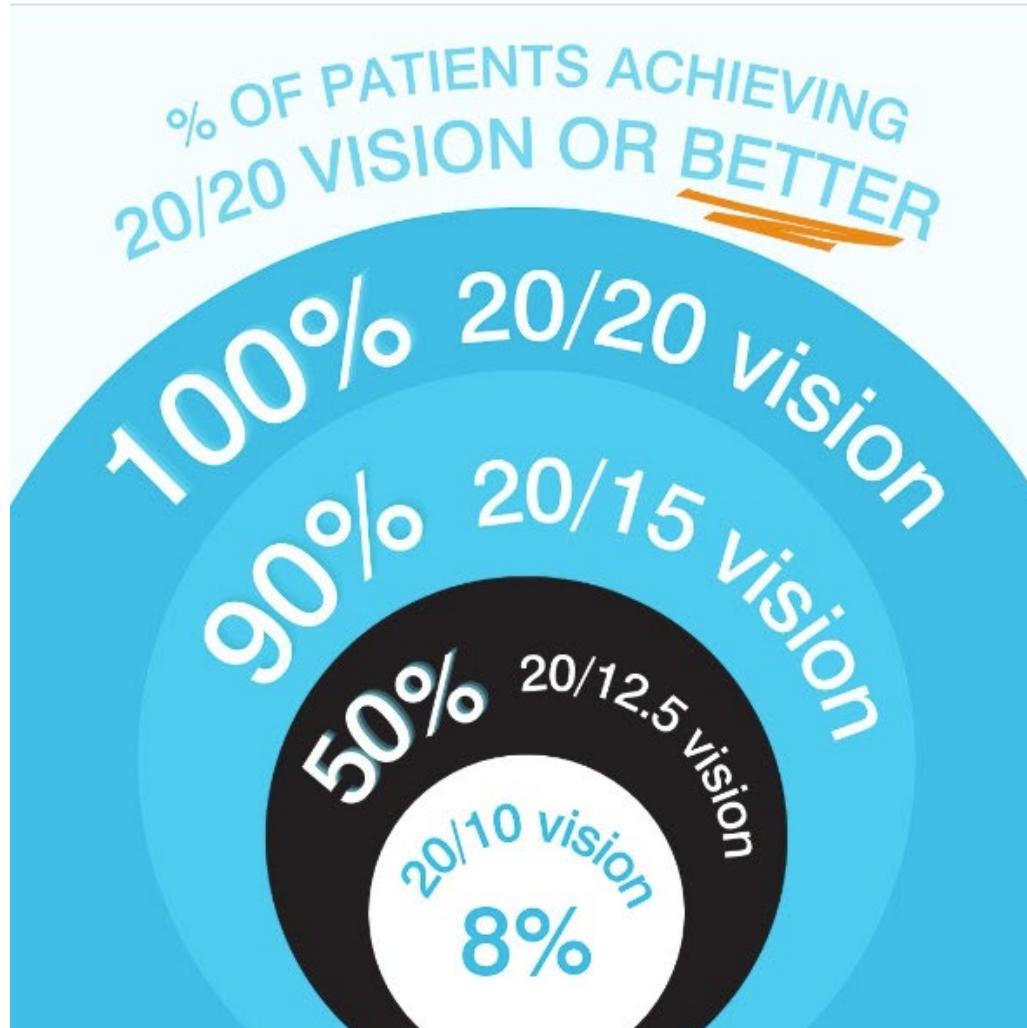
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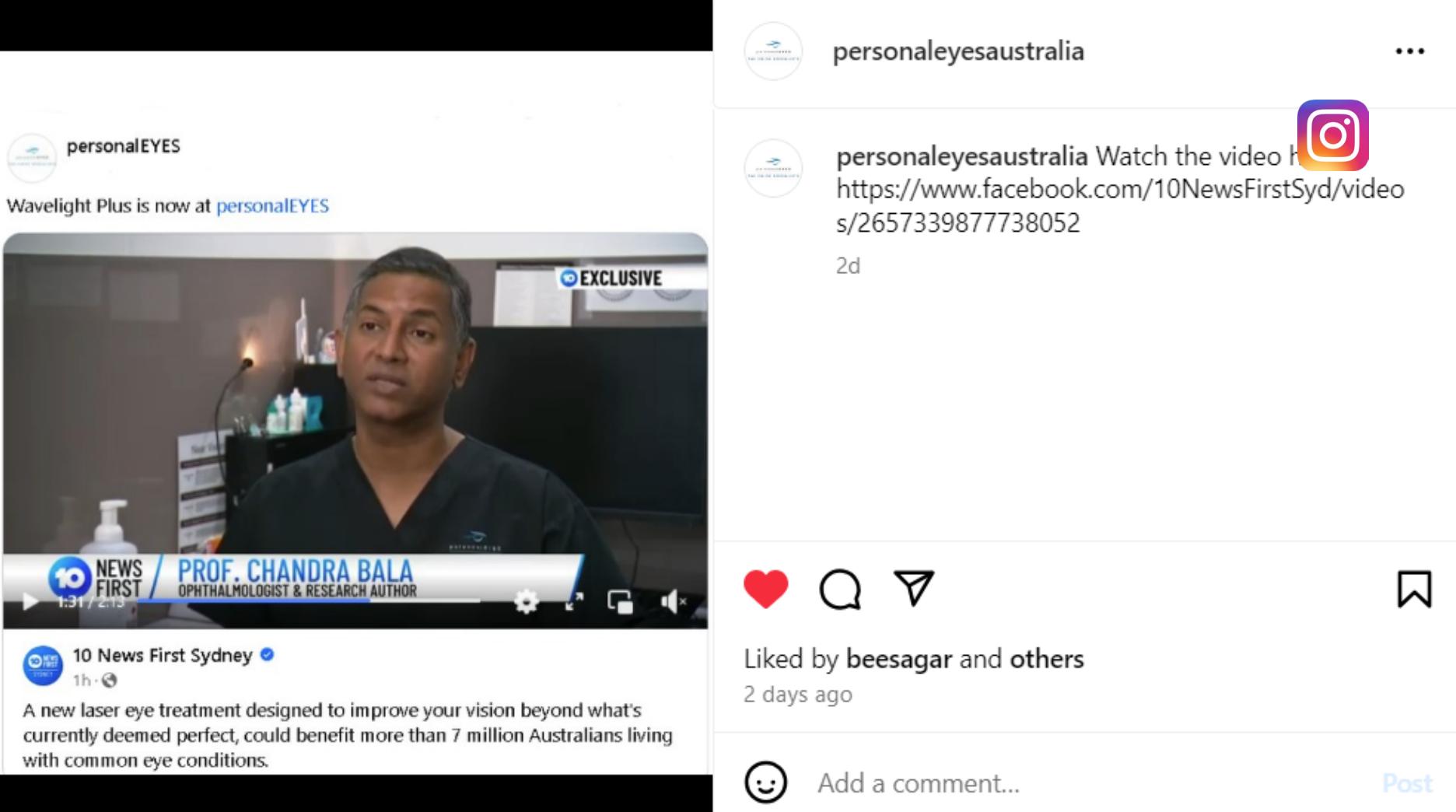
Wavelight Plus (Ray Trace Technology) now available at personalEYES!

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personalEYES

Wavelight Plus is now at [personalEYES](#)



EXCLUSIVE

10 NEWS FIRST / PROF. CHANDRA BALA OPTHALMOLOGIST & RESEARCH AUTHOR

1:31 / 2:13

10 News First Sydney • 1h · 10

A new laser eye treatment designed to improve your vision beyond what's currently deemed perfect, could benefit more than 7 million Australians living with common eye conditions.

personaleyesaustralia

personaleyesaustralia Watch the video [here](https://www.facebook.com/10NewsFirstSyd/videos/2657339877738052)

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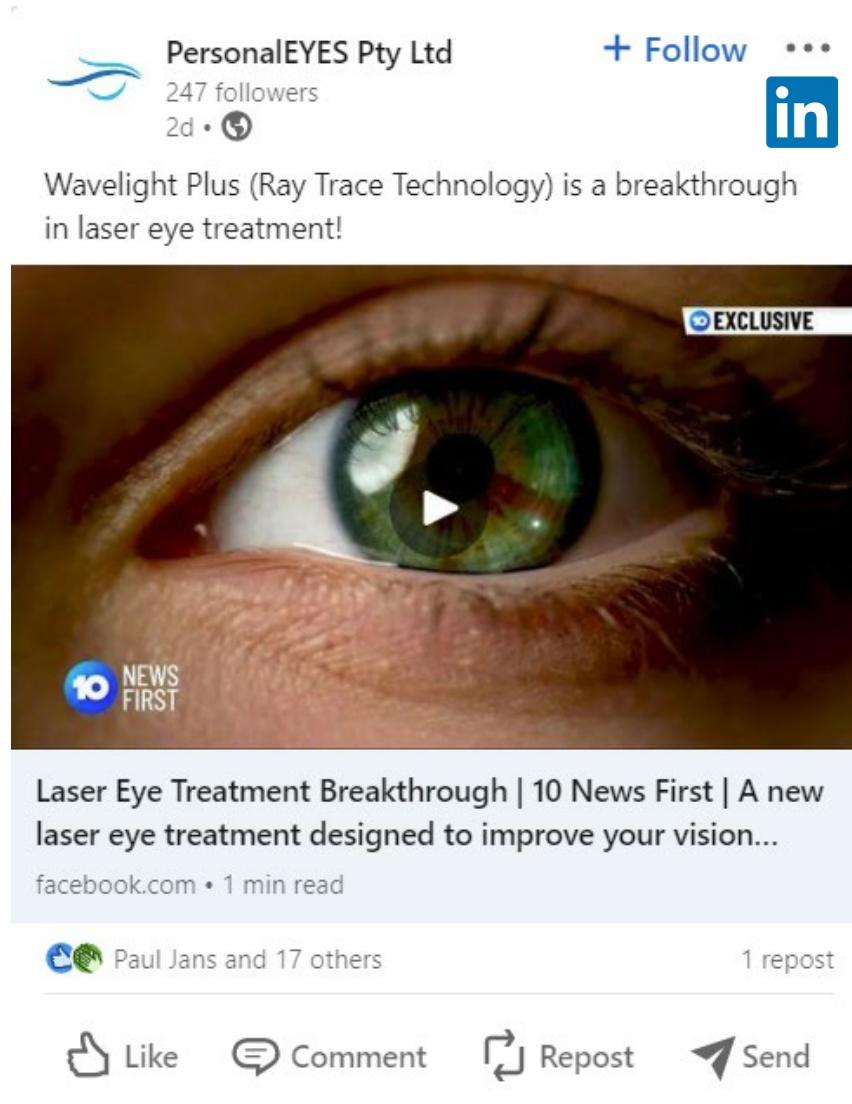
[Wavelight Plus is now at personalEYES](#)

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Wavelight Plus (Ray Trace Technology) is a breakthrough in laser eye treatment!

 EXCLUSIVE

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Did you know... ray-tracing technology has been developing for the past decade, with the purpose of personalising laser eye treatment, by mapping the path of every light ray that passes through an individual's eye.

PersonaleYES is now offering next-generation, ray-tracing laser eye technology for the treatment of the common eye conditions, myopia (shortsightedness) and/astigmatism (misshapen eye or lens).

500 beams of light travel into the eye generate an accurate 'eyevatar' of an eye, which guides an individual's treatment profile.

👉 Learn more about ray-tracing technology here: https://lnkd.in/gbUq_sm4

#raytracingtechnology #advanced #innovation #lasik #lasereyesurgery
#lasereyetechnology

#lasereyetechnology

unlocking HD vision



Did you know ... ray-tracing technology has been developing for the past decade

PersonalEYES – LinkedIn

Audience: 251

December 4, 2023

Social media outcomes



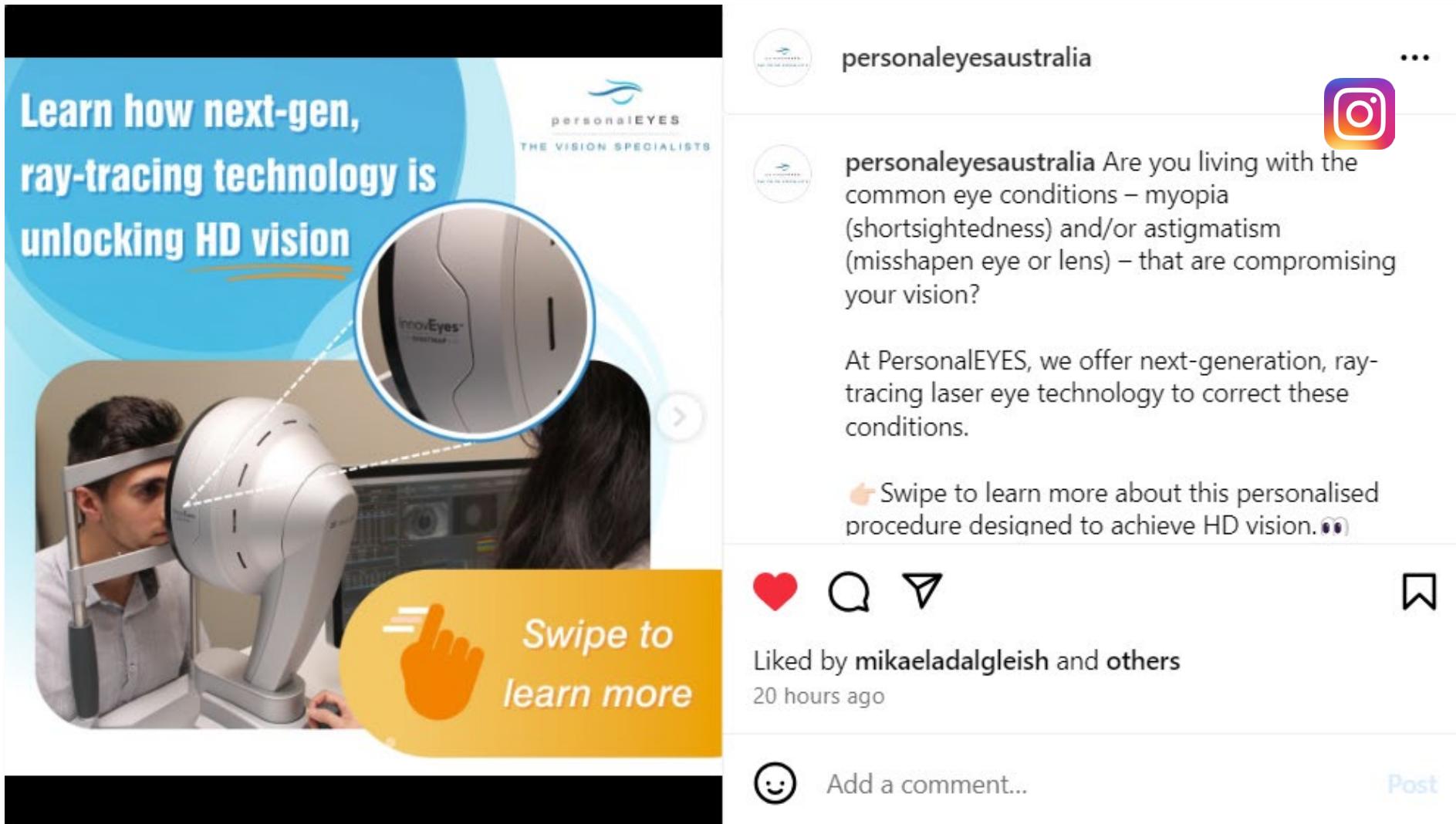
PersonalEYES is now offering next-generation, ray-tracing laser eye technology for the treatment of common eye conditions

PersonalEYES – Facebook

Audience: 2,500

December 4, 2023

Social media outcomes



Learn how next-gen, ray-tracing technology is unlocking HD vision

Swipe to learn more

personaleyesaustralia Are you living with the common eye conditions – myopia (shortsightedness) and/or astigmatism (misshapen eye or lens) – that are compromising your vision?

At PersonalEYES, we offer next-generation, ray-tracing laser eye technology to correct these conditions.

Swipe to learn more about this personalised procedure designed to achieve HD vision.

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Are you living with the common eye conditions

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LIV

18h ·

👉 Personalised, ray-tracing laser eye technology is moving beyond 20/20 vision, & achieving high-definition (HD) vision, 😊😊👉 according to new research published in the Journal of Cataract and Refractive Surgery.👉👉

New research author, Ophthalmologist & Director of PersonalEYES, Associate Professor Chandra Bala, Sydney, reveals next-generation, ray-tracing laser eye technology is enabling eye surgeons to move beyond 20/20 vision, & in most cases, achieve HD vision for people living with myopia & astigmatism.

"For the first time, we are offering personalised laser eye correction treatment that employs NASA Hubble Space telescope eye tracking technology, allowing the laser to move faster than the eye, simultaneously detecting, and accommodating for any eye movements like never before," said A/Prof Bala. 🚀🌟

In his research, A/Prof Bala found 90 per cent of those who underwent ray-tracing laser eye technology treatment achieved 20/15 vision (better than 20/20 vision)! 😊

"This technology provides the most accurate method currently available for measuring & modelling the eye," A/Prof Bala said.

Human Resources (HR) specialist, and yoga and pilates enthusiast, Jodie, 31, Sydney, went in search of a permanent corrective eyecare treatment this year, after no longer wanting to rely on glasses and contact lenses to see.

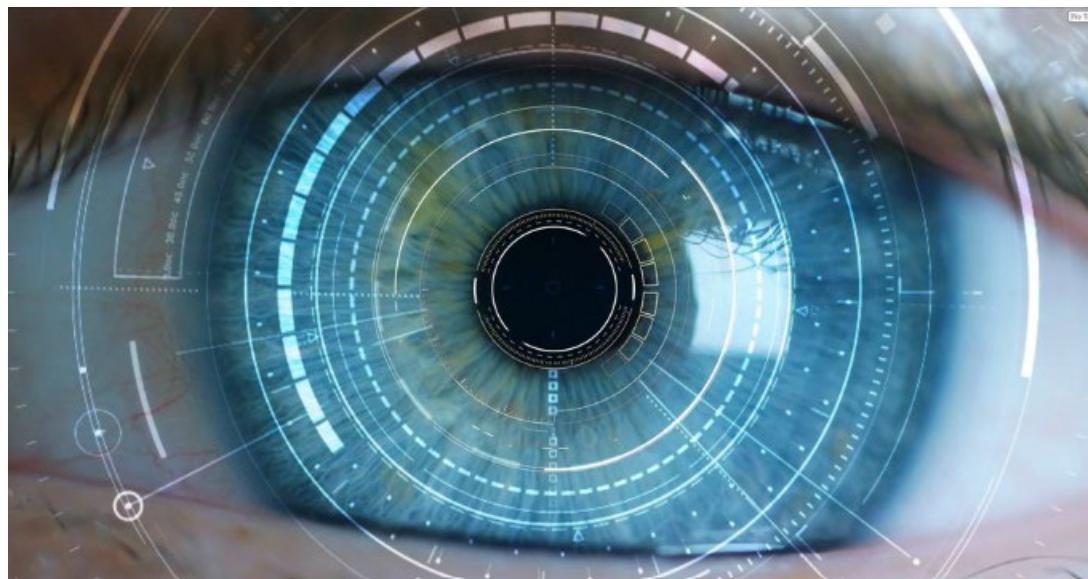
"I started to wear my glasses during my pilates class because I couldn't see my instructor. But they constantly slid off my face," Jodie said.

After undergoing permanent, corrective treatment, Jodie now sees the world with new eyes.

To learn more about A/Prof Bala's research, or to read more on Jodie's experience of living with myopia, head to: <https://ow.ly/Z8YE50QfOHZ>

To determine whether you, or a loved one may be suitable for ray-tracing, laser eye technology, head to personaleyest.com.au.

#raytracing #laser #eye #surgery #PersonalEYES #eyevatar



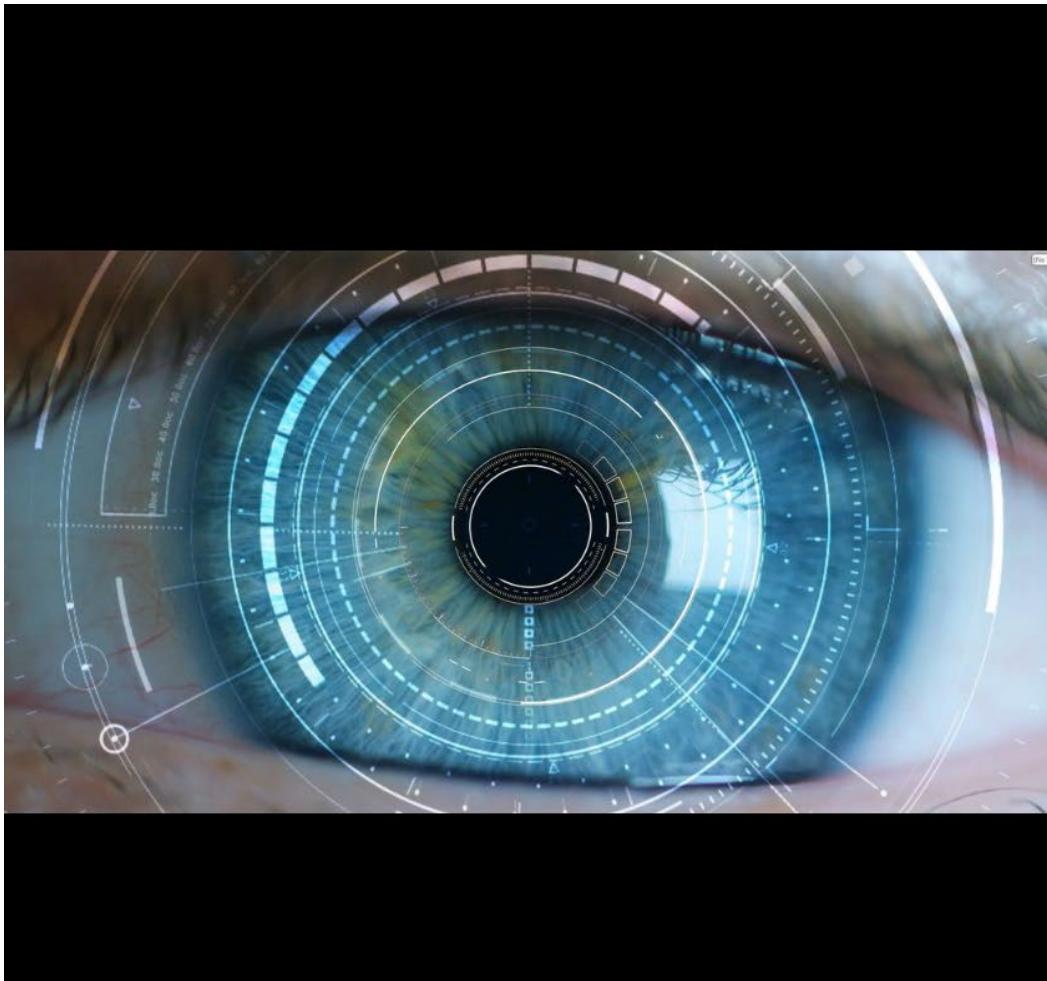
Personalised, ray-tracing laser eye technology is moving beyond 20/20 vision

LIV – Facebook

Audience: 562

December 6, 2023

Social media outcomes



livhealthau ...

livhealthau New, Australian-first research published  Journal of Cataract and Refractive Surgery reveals next-generation, ray-tracing laser eye technology is moving beyond 20/20 vision, & achieving high-definition (HD) vision! 😊owl hands

In his AUS-first research, Ophthalmologist & Director of PersonaleYES, A/Prof Bala, Sydney, who treated 200 adult patients (400 eyes), found 90 per cent of those who underwent ray-tracing laser eye technology treatment achieved 20/15 vision (better than 20/20 vision)! 😊

"For the first time, we are now offering 'personalised' laser eye correction, employing NASA Hubble Space telescope eye tracking technology, that allows the laser to move faster than the eye, simultaneously detecting and accommodating for any eye movements like never before. 🚶✨

"This technology provides the most accurate method currently available for measuring & modelling the eye," said A/Prof Bala.

To learn more, head to: <http://www.livhealth.com.au/ray-tracing-laser-eye-technology-treatment-achieving-hd-vision-in-those-with-myopia-and-astigmatism/>

To find out if you, or a loved one may be suitable for ray-tracing laser eye technology, head to [personaleyes.com.au](http://www.personaleyes.com.au).

 #raytracing #laser #eye #surgery #PersonaleYES #eyevatar
22h

New, Australian-first research published in the Journal of Cataract & Refractive Surgery reveals next-generation, ray-tracing laser eye technology is moving beyond 20/20 vision

LIV – Instagram

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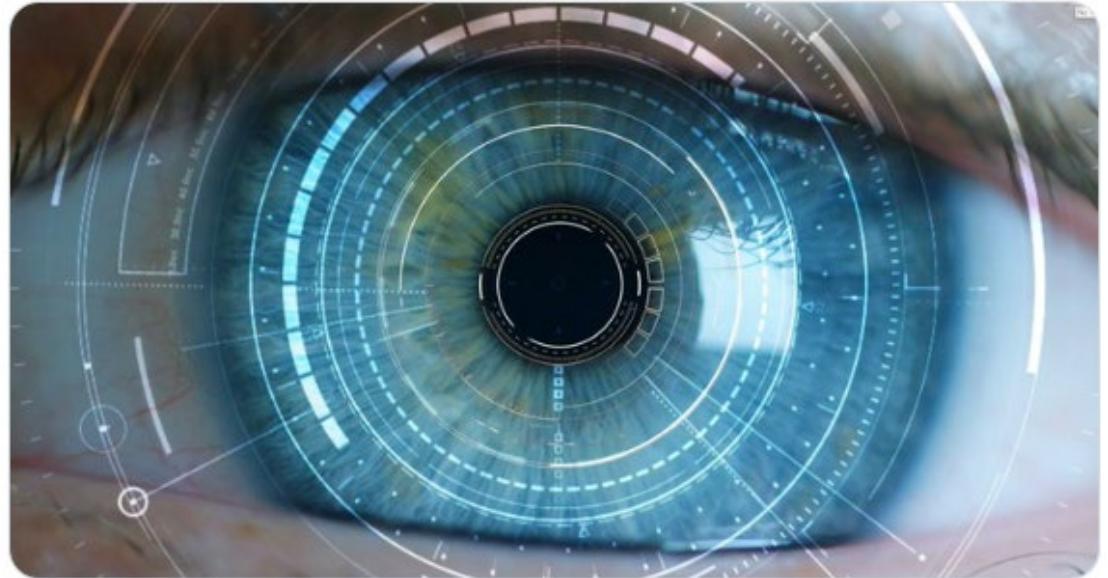
December 6, 2023

Social media outcomes

 **Livhealth**
@Livhealthblog

New **#AUS-first #research** reveals 90% of patients who underwent **#next-generation #ray-tracing #laser #eye #technology #treatment** achieved **#20/15 vision** (better than **#20/20 vision**). 😱🤩👁️👀

To learn more, head to: ow.ly/4X9150QfOLb



New #AUS-first #research reveals 90% of patients who underwent #next-generation #ray-tracing #laser #eye #technology #treatment achieved #20/15 vision

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Seven million Aussie adults living with the common eye conditions, myopia (shortsightedness) & astigmatism (eye imperfection), may now benefit from the availability of next-generation, ray-tracing laser eye technology.

Last weekend VIVA! Communications teamed with [PersonalEYES Pty Ltd](#) to launch next-generation, ray-tracing laser eye technology & supporting findings from new Australian research published in the [Journal of Cataract & Refractive Surgery®](#).

According to research co-author, Ophthalmologist, & Managing Director of Personal Eyes, Associate Professor Chandra Bala, Sydney, "this advanced diagnostic technology directs 500 beams of light at the eye, measuring & collecting data from the reflected light with microscopic precision of 1/100,000 of a millimetre, to generate a personalised treatment plan.

"This technology provides the most accurate method currently available for measuring & modelling the eye," said A/Prof Bala

"Given each set of eyes is unique, treatment should not be a 'one-size-fits-all' approach."

Ray-tracing laser eye technology is a next-generation guided laser eye technology offering patient-customised laser eye treatment. Generating a personalised, multidimensional, 3D eye model, or 'eyevatar', the ray-tracing guided laser eye technology enables eye surgeons to move beyond 20/20 vision.

Clinical Scientist Ophthalmologist, Westmead Hospital, & Glaucoma Specialist, PersonalEYES, Clinical A/Prof Andrew White, Canberra, maintains there is a broad community misconception that 20/20 vision is 'perfect vision'. It is, rather, 'average' eyesight that 90 per cent of patients who undergo standard laser surgery for myopia can achieve.



"In order to go beyond 20/20 vision, treatment must be customised to the eye. This Australian-first next-generation, ray-tracing laser eye technology is making this possible," A/Prof White said.

Results from the study revealed 90 per cent of those who underwent ray-tracing laser eye technology treatment achieved 20/15 vision; 50 per cent of patients achieved 10/12.5 vision; while 8 per cent of patients achieved 20/10 vision.

"The technology offers Australian adults living with common eye condition, the opportunity to throw away their glasses & contact lenses for good, & to potentially, save money in the long-term," said A/Prof White.

To learn more about the ray-tracing laser eye treatment, visit:
<https://lnkd.in/gYx9uzcW>

#raytracing #laser #eye #surgery #PersonalEYES #innovation #research
#technology #treatment #eyevatar #myopia #astigmatism



Seven million Aussie adults living with the common eye conditions

VIVA! Communications – LinkedIn

Audience: 1,394

December 6, 2023

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Published by Hootsuite · Yesterday at 11:02 ·



Seven million Aussie adults living with the common eye conditions, myopia (shortsightedness) & astigmatism (eye imperfection), may now benefit from the availability of next-generation, ray-tracing laser eye technology.

Last weekend VIVA! Communications teamed with [personalEYES](#) to launch the next-generation, ray-tracing laser eye technology & supporting findings from new Australian research published in the [Journal of Cataract & Refractive Surgery](#).

According to research co-author, Ophthalmologist, & Managing Director Associate Professor Chandra Bala, Sydney, the study found 90 per cent of those who underwent ray-tracing laser eye technology treatment achieved 20/15 vision; 50 per cent of patients achieved 10/12.5 vision; & 8 per cent of patients achieved 20/10 vision.

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"In order to go beyond 20/20 vision, treatment must be customised to the eye. This Australian-first next-generation, ray-tracing laser eye technology is making this possible," A/Prof White said.

To learn more about the ray-tracing laser eye treatment, visit:

<http://vivacomunications.com.au/.../personalised.../>

#raytracing #laser #eye #surgery #PersonalEYES #eyevatar



Seven million Aussie adults living with the common eye conditions

VIVA! Communications – Facebook

Audience: 1,060

December 6, 2023

Social media outcomes



viva.communications Original audio

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Exciting news for the seven million Aussies living with the common eye conditions, myopia (shortsightedness) & astigmatism (eye imperfection)!
Teaming up with @personaleyesaustralia – the Vision Specialists, our team at VIVA! Communications has been hard at work, launching a novel eye technology known as ray-tracing laser eye technology, & supporting research findings.
Ray-tracing laser eye technology is a next-generation guided laser eye

[View insights](#) [Boost post](#)

9 likes 1 day ago

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Exciting news for the seven million Aussies living with the common eye conditions

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Exciting **#news** for **#seven #million #Aussie #adults** living with common **#eyeconditions**.

New **#eye #tech -#ray-tracing #laser #eye #technology** – is now available in **#Australia**, enabling **#eye #surgeons** to move **#beyond #20/20 #vision**.

For more, head to: vivacommunications.com.au/blog/personal...



Exciting #news for #seven #million #Aussie #adults living with common #eyeconditions

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December 6, 2023

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