



emerging
trends

Emerging Trends That Will Transform Eyecare

Presented by Jay Binkowitz

Co-founder GPN EDGEPro

Co-founder & EVP Professional Relations Keplr Vision

Industry Consultant - AskJayB

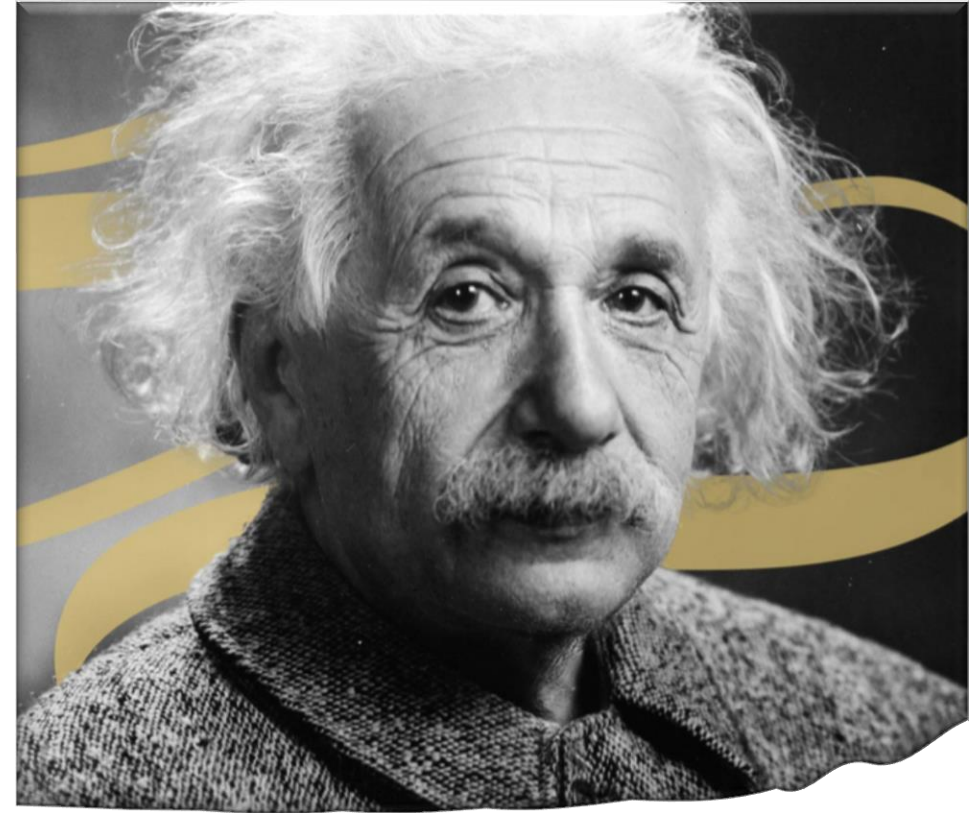
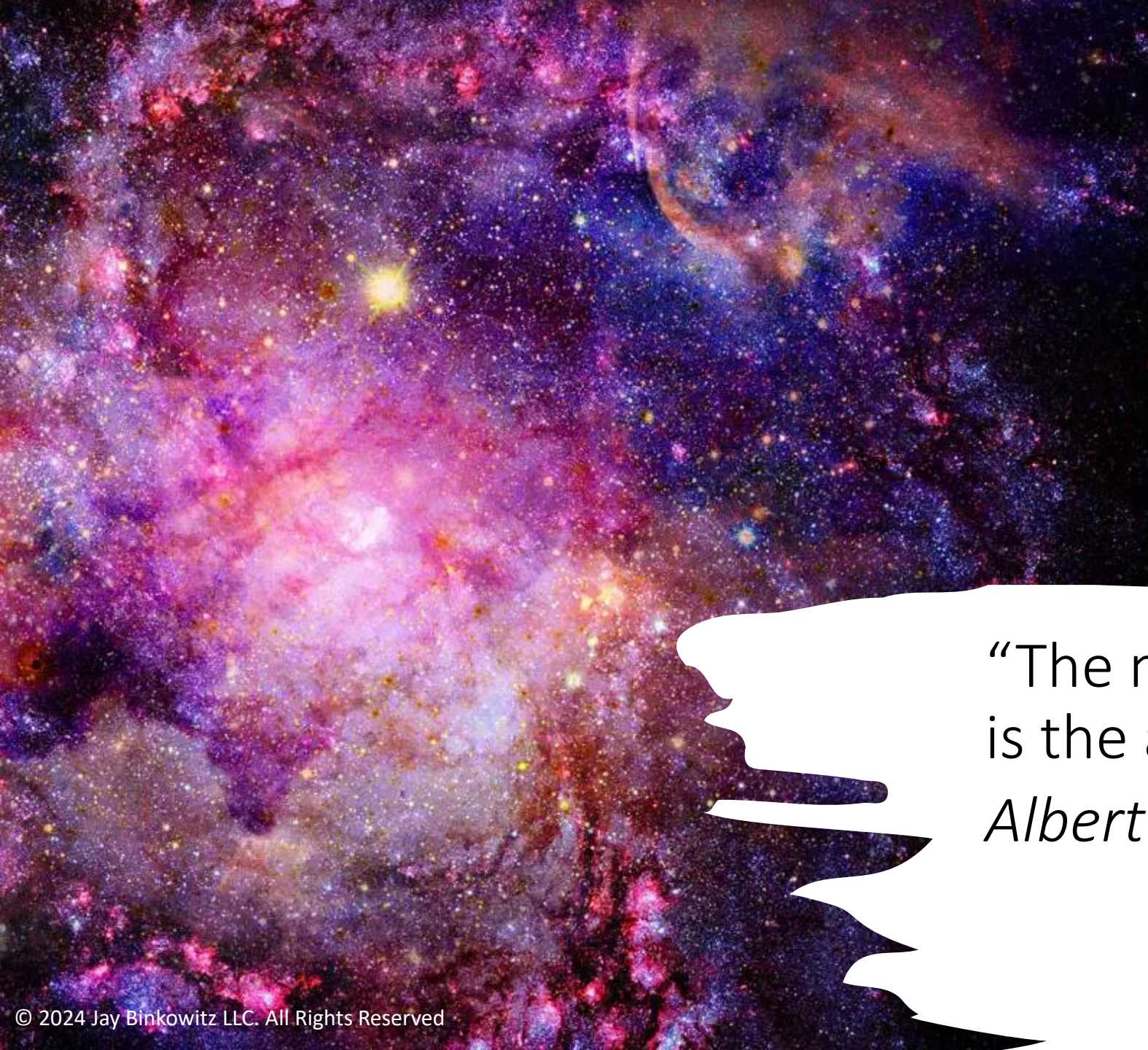


Jay Binkowitz

Over the last 40 years, Mr. Binkowitz has had extensive experience in retail operations, merchandising & marketing, manufacturing & distribution, technology development, national sales, and on-site interactive consulting.

With the development of GPN™ EDGEPro, he created a unique support company that provides infrastructure to strengthen independent practitioners with new business management tools and processes. He is the co-founder & EVP of Professional Relations Keplr Vision and works as an industry consultant.

Mr. Binkowitz served 2 years as the benedict professor at the Houston College of Optometry and as an adjunct professor. He has published articles in many eye care industry magazines and is a keynote speaker at many industry events, both domestically and internationally.



“The measure of intelligence
is the ability to change”

Albert Einstein

*Welcome to
the Golden
Age of
Optometry*

Buying?

Opening?

Growing?

a practice

What questions should you ask?

*Welcome to
the Golden
Age of
Optometry*

**new opportunities as we redefine patient care
and our role**

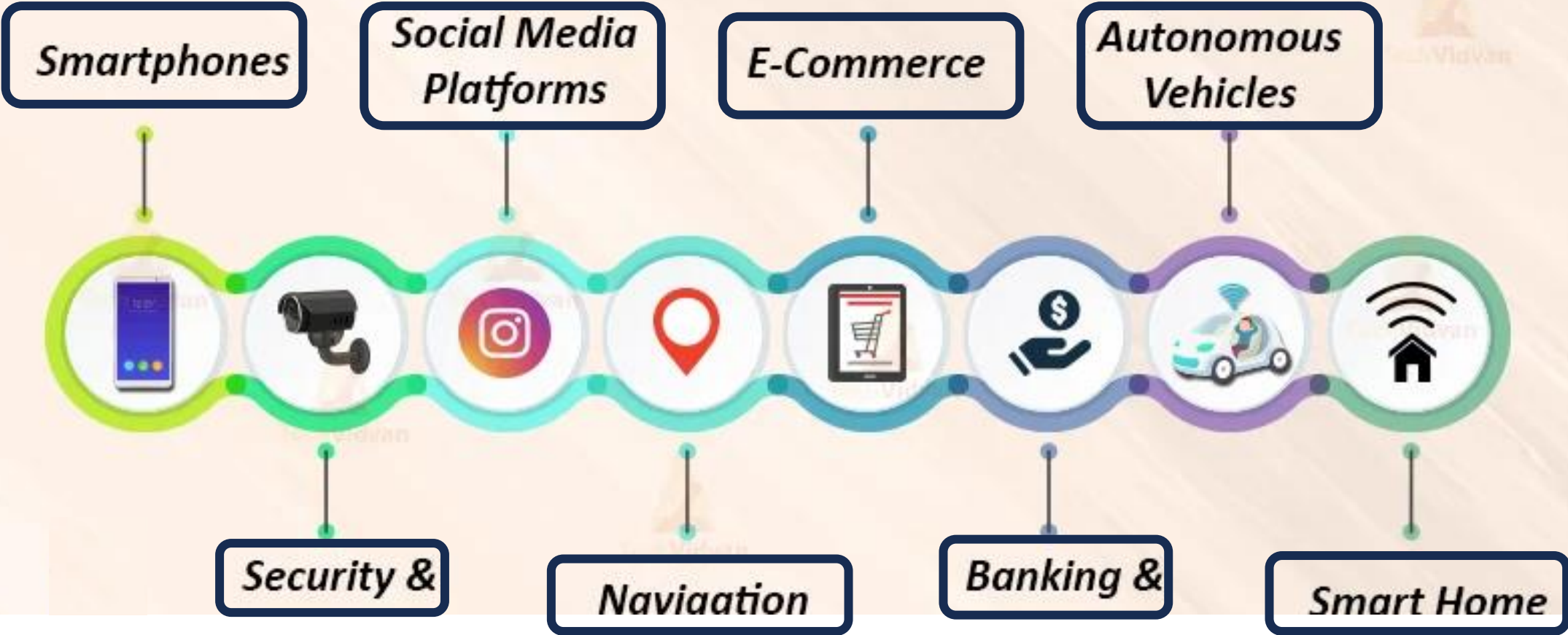
practices of yesteryear are drifting away

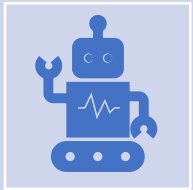
the arrival of new technologies, treatments and
the possibility of **ownership in ways we never
imagined.**

**the population's need for "Advanced Medical
Care" (AMC).**



How AI is impacting our lives?





How artificial intelligence is used in “healthcare”?

Remote Doctors, Techs, Scribes and more ...



AI provides opportunities to **reduce human error, assist medical professionals and staff, and provide patient services 24/7.**



Reading medical images, X-rays and scans, diagnosing medical problems and creating treatment plans.

The benefits that AI offers to the “healthcare” industry include

predictive capabilities

assistance in administrative tasks

expertise in pattern recognition and learning

explanation of outcomes

for use by patients, by clinicians, by administrative staff, and by the pharmaceutical industry

For non-medical

over-the-counter wearables

Fitbit

Apple Watch

Blood pressure monitors

**These devices collect data on bodily functions such as heart rate, temperature, blood sugar and mobility.*

They compile data to deliver health diagnoses directly to the wearer.

Discover New Avenues for Reimbursement



Visual Fields

CPT 92081 | 92082 | 92083

Visual Field testing is billable to insurance with a national average of \$33.51 - \$63.68.*

Born out of Bascom Palmer

Heru was born out of 10 years of clinical research at the University of Miami's Bascom Palmer Eye Institute, the nation's leading eye hospital.





Dark Adaptation

CPT 92284

Measure dark adaptation to evaluate retinal function.



Visual Fields

CPT 92081, CPT 92082,
CPT 92083

Screen patients faster than ever before, anytime, anywhere in your practice.



Color Vision

CPT 92283

Eliminate paper charts and plates while expanding practice capabilities.



Contrast Sensitivity

Life isn't black and white. Go beyond visual acuity with digital Contrast Sensitivity.

Enhance the Patient Experience. Increase Practice Revenue.

Provide a more comfortable, enjoyable patient experience with our wearable AR/VR device.

With 9 vision exams linked to 5 CPT codes, we deliver a simple solution to reimbursement for patient care.



Virtual Vision Test by Warby Parker

Seeing well out of an expired glasses or contacts prescription? If you're eligible, renew yours from home in just 10 minutes.

\$15 only if your prescription is renewed

[Download for free](#)





www.aop.org.uk



Home monitoring

For optometrist Stephanie Campbell, a formative experience that illustrated the potential of technology occurred when she was testing the vision of a young boy with Down's Syndrome while completing her PhD at Cardiff University.

Campbell was struggling to test the vision of her patient without glasses, when he reached for her iPad and started searching for videos.

"He could find the YouTube icon but when he got into YouTube, he couldn't really see much detail," she said.

Campbell began to wonder if she could develop a video game where patients would tap on the objects that they can see. Technology that could be used from the comfort of a patient's home would also lessen the stress that some patients feel when attending a sight test.

"If we could gamify the measurement of vision, it makes someone less nervous, and you actually get better data when the patient is relaxed," Campbell explained.



Dr Stephanie Campbell

Myopia and AI

Professor Daniel Ting is head of artificial intelligence and digital innovation at the Singapore Eye Research Institute.

His team developed the Singapore Eye Lesion Analyzer Plus (SELENA+) – a CE-marked deep learning system that screens for diabetic retinopathy.

Ting and colleagues have also developed two AI algorithms with applications for myopia.

The first algorithm helps to screen for myopic macular degeneration and myopic choroidal neovascularisations among adult myopes – as well as identifying those who at risk of developing the conditions.



Professor Daniel Ting



What smartphone data reveals about visual function



Watch later



Share

TRACKING SIGHT LOSS USING YOUR SMARTPHONE



Optometrist, Kishan Devraj, developed a chat bot to answer the questions of patients with genetic eye disease.

You need to be the **EXPERT!**

*What is your definition of
an Optometrist?
patient care?
cookie cutter optometry?*

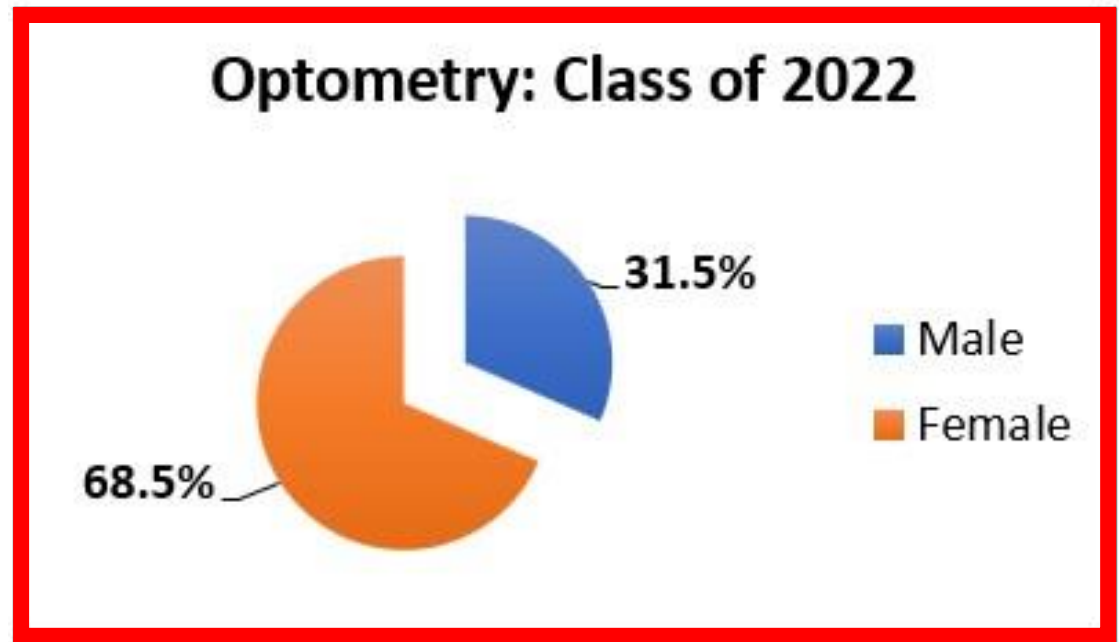
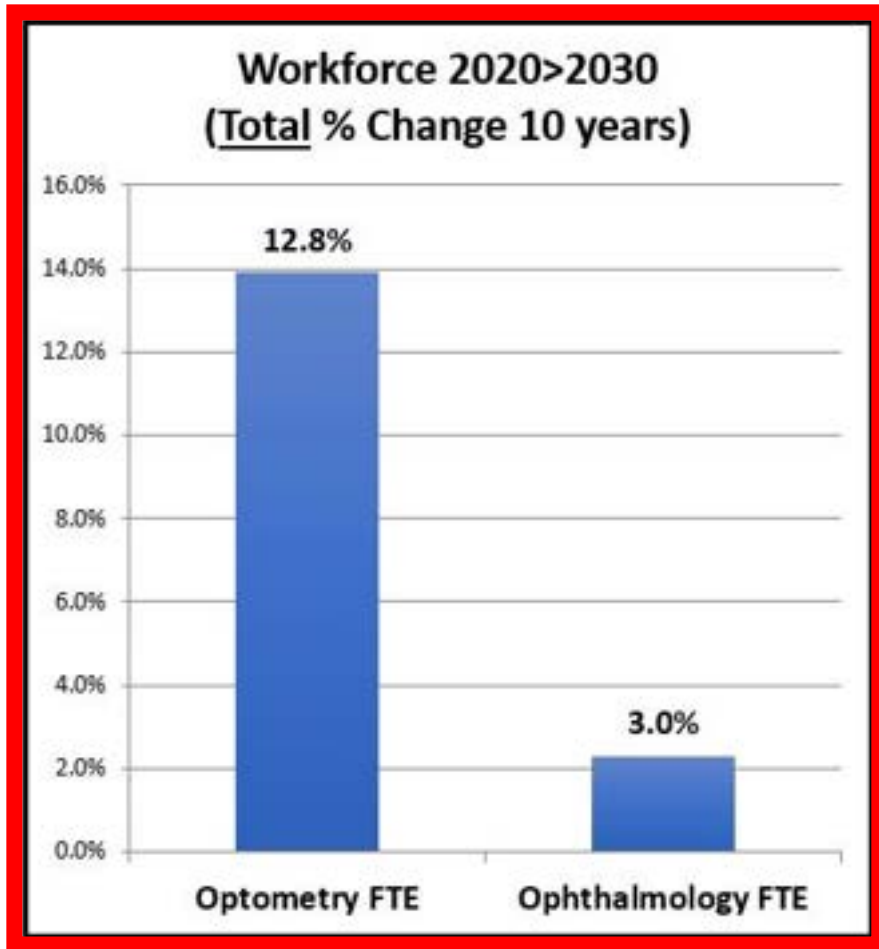
What's the definition of a practice ?

*How will you leverage technology to provide
care and a new experience for your patients?*



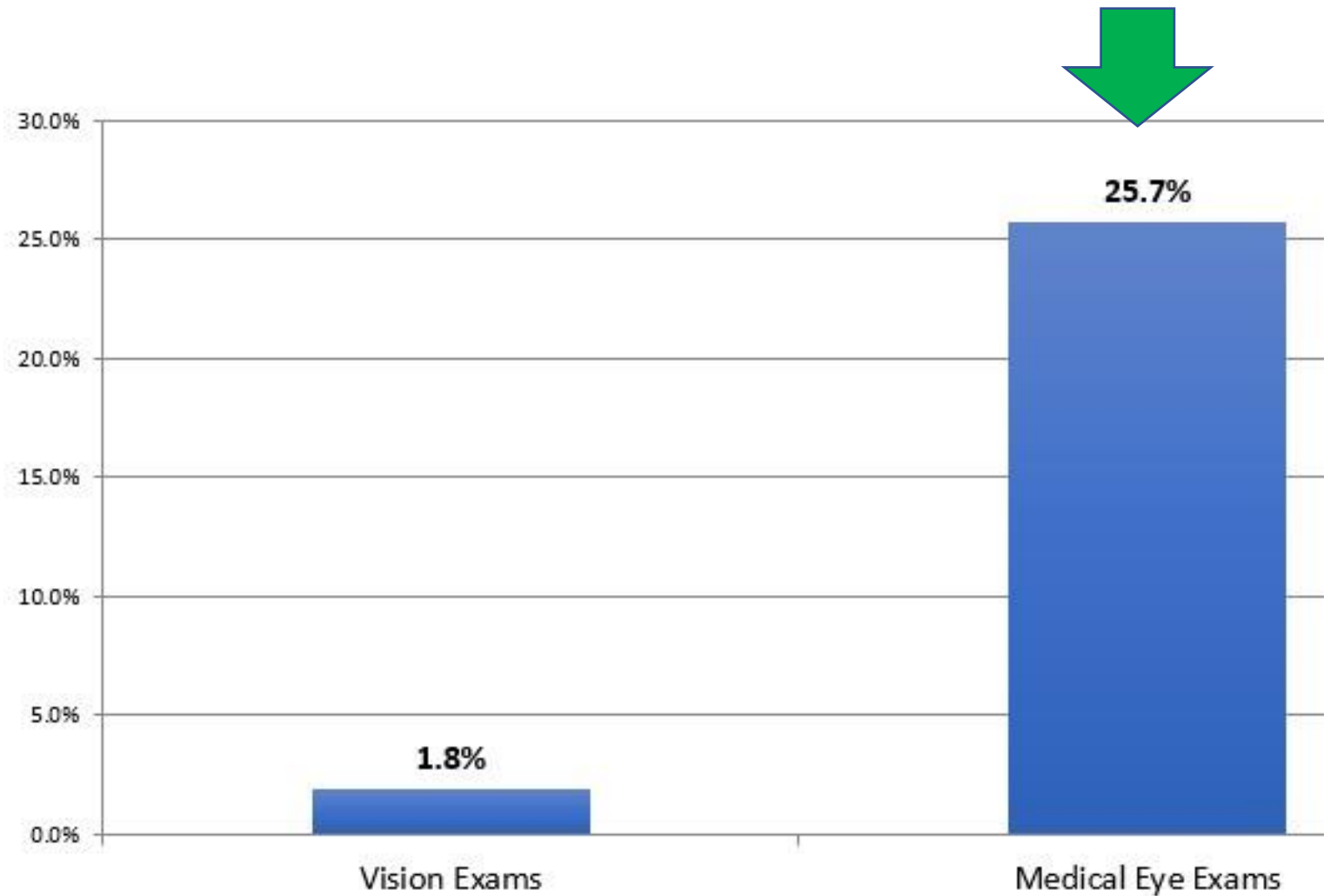


Workforce Demographic Shifts 2020 - 2030

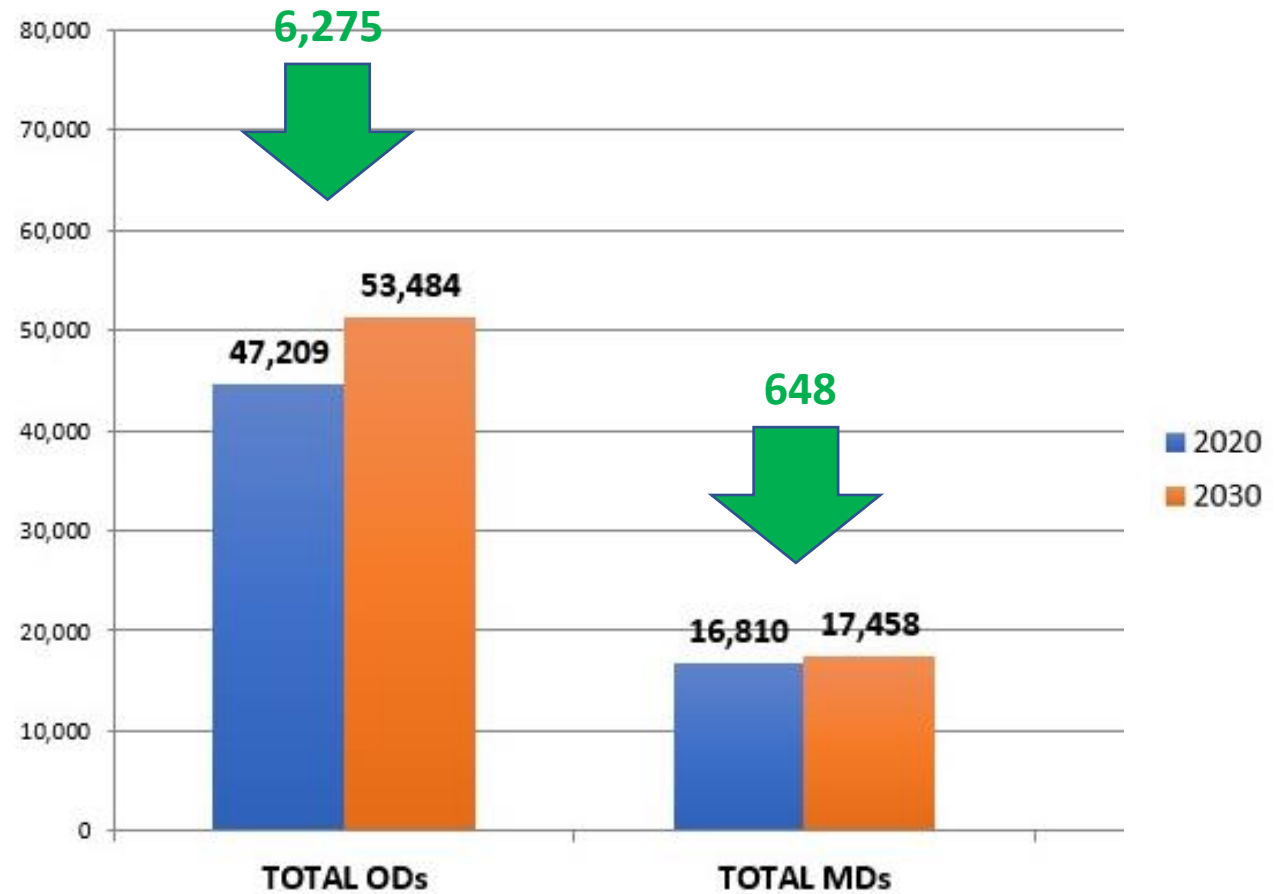


Exams

Total 10 Year
Growth Rate
2020-2030



TOTAL WORKFORCE 2020 - 2030



Summary

We will not have enough doctors to service the demand

New Graduates (2022)	OD's - 68.5% Female	MD's - 58% Female	
<u>FTE</u> Growth by 2030	OD's - 12.8%	MD's - 3%	
Total Work Force 2020	OD's - 47,209	MD's - 16,810	
Total Work Force 2030	OD's - 53,484	MD's - 17,458	
	6,275/10=628		648/10=65
Exam Growth by 2030	Vision - 1.8%	Medical - 25.7%	
Over 65 Population	30.5% Growth		
Medical Eye Exam Demand	2020 - 56,911,555	2030 – 71,540,972	14,629,417
<u>FTE</u> MD's	2020 – 16,042	2030 – 16,518	476
Cataract Surgery	2020 – 4,200,000	2030 – 5,600,000	1,400,000
<u>FTE</u> MD's	2020 – 16,042	2030 – 16,518	476



What is your definition of an Optometrist?

What's the definition of a practice ?

How will you leverage technology to provide care and a new experience for your patients?





Bone conduction headphones **rest directly on the listener's cheekbones.**

The eardrum doesn't vibrate to pass the information along.

Instead, the vibrations from the bone conduction **bee-lines** for the cochlea.

The Future Of Technology: Accessorize With Smart Glasses

by [author name]

10/26/2022 | 10 min read



The Latest Wearables: Smart Glasses

Earlier this year Google announced that they were stopping production of the Pixel Watch. That doesn't mean that progress in the world of the Smart Glasses has been at



MAGAZINE | VISION | NEWS | FEATURES | EVENTS | VISIONPLUS APP



Eyewear Gets Smarter: The Contact Lens Of The Future!



SCIENCE | TECHNOLOGY | ENVIRONMENT | DIY | HEALTH | GEAR | POPSCI 150 | MERCH | NEWSLETTER SIGN-UP

Best smart glasses of 2022

The future's so smart, I gotta wear shades.

BEST FOR MUSIC



Bose Frames Tempo



CHECK PRICE →

Audio hardware mainstay Bose predictably delivers the best

BEST FOR VIDEO



iVue Vista



CHECK PRICE →

The iVue Vista HD give you more framerate and resolution

BEST FOR SOCIAL MEDIA



Ray-Ban Stories



CHECK PRICE →

Facebook and Ray-Bans made a solid pair of smart glasses with

• PLAY MUSIC, TAKE CALLS, USE SIRI

MEET THE FIRST ChatGPT ENABLED GLASSES

Explore our limited edition dip-dyed
summer lenses in stunning pastel hues.

SUNGLASSES

OPTICAL

 lucyd[®]

Introducing the world's first smart eyewear powered with ChatGPT

Speak any query to ChatGPT handsfree and hear the response through your glasses.

Is It Time To Optimize Your Website For Smart Glasses?

September 21st, 2021 • Design, Technology, Video, Web



Bose Frames Tempo



Facebook & Ray-Ban Launch \$300 Stories Glasses, a Hybrid Between Snap Spectacles & Bose Frames



Interactive Eyewear

Google

RayBan

Computer, Android, Mac, Smart Glasses?



Macular Degeneration



Electronic glasses are a recent development in low vision devices for macular degeneration and are not available in traditional optometrists' offices. You'll need to go to a low vision specialist to

Distance Vision Correction



Eyeglasses with High-Powered Lenses



Checking Visual Fields Using Virtual Reality

Many disadvantages associated with standard visual field testing may be eliminated using this novel technology.

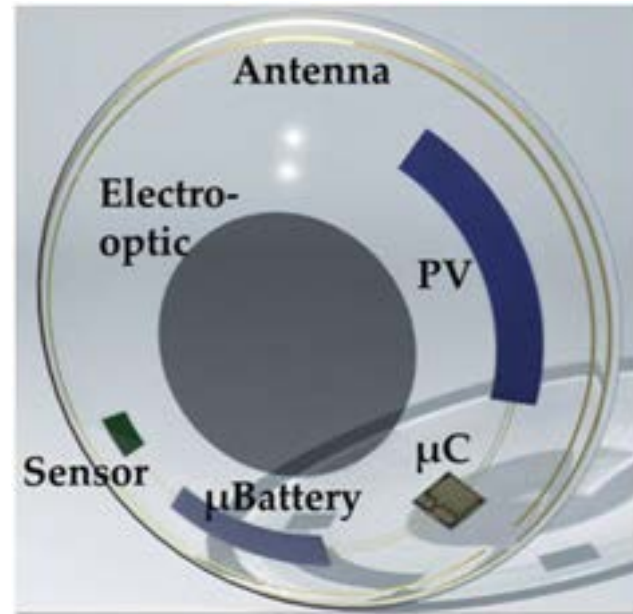


How will this change the way we design our offices?

AUGMENTED REALITY CONTACT LENSES

A new generation of contact lenses built with very small circuits and LEDs promises ***bionic eyesight***

Lee Majors - The Six Million Dollar Man



THE FUTURE - JULY 4, 2011

Huge milestone as human subject wears augmented reality contact lens for first time

SMART CONTACT LENSES

Mojo Lens' revolutionary design uses a ***tiny microLED display the size of a grain of sand***

smart sensors powered ***by solid-state batteries built into a scleral lens*** that also corrects your vision.

Google

Smart Contact Lenses

Soft contact lens

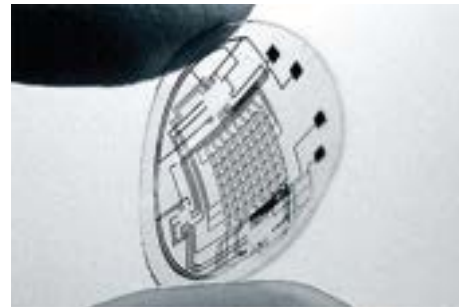
encapsulates electronics

Sensor

detects glucose in tears

Chip & antenna

receives power and sends info





Smart Contact Lenses

- **Make a speech**, *the words scroll in front of your eyes*
- **You're a musician** with your *lyrics, or your chords, in front of your eyes.*
- **You're an athlete** and you *have your biometrics and your distance*



Your eyes work hard
NeuroLens
relieves the pain



Headache



Eye



Neck



Shoulder



neuroLens® starts at \$650 for SV & \$850 for Progressives



nMD2
neuroLens® Measurement Device, Gen 2

- ✓ Accurate to 0.1PD (Prism Diopters)
- ✓ 80% Smaller than nMD1
- ✓ 35% Faster test (less than 2 mins)

What is
Specialty
Care?

What will you
need to
compete?

Patient demand and your passion will redefine this

Practice Differentiator

Low Vision Devices



Your Techs are the Teachers

Practice Differentiator

Are You Suffering From Post-Concussion Symptoms?

Dr. Russell Lerner, January 26, 2020

Up to 90 percent of people experience post-concussion symptoms for many years... until they receive effective treatment from a neuro-optometrist.

Post-traumatic vision syndrome (PTVS) is a condition that frequently occurs following a neurological event, such as a concussion or traumatic brain injury (TBI).

This condition is caused by a disconnect between the central and peripheral visual systems and occurs when the connections between the eyes and the brain become damaged.

Post-traumatic vision syndrome generally results in reduced visual processing and consequently, a range of visual symptoms.

If you suspect you have an eye condition, [contact an eye doctor](#) near you, who can diagnose and treat the condition.

RELATED ARTICLES

- Managing Concussion: A Team Approach

RELATED TOPICS

- Eye Movement Problems after a Brain Injury
- Neuro-Ophthalmology: The Research
- Remembering the Brain Post-Concussion

Practice Differentiator

REVIEW of OPTOMETRY Leadership in clinical care

HOME CE TOPICS - EVENTS -

Published June 15, 2020

Bring Concussion Care Into Your Practice

Adapt to the problems these patients present during treatment, and be an advocate for preventative measures.

By Maria Richman, OD

Millions of Americans suffer from a traumatic brain injury (TBI) each year, with nearly 75 percent of all those with TBI suffering from some form of visual dysfunction.¹ Patients may come into the primary care optometrist's office complaining about double vision, blurred vision, closing one eye, dizziness, headaches, sensitivity to lights, bumping into things and/or poor coordination.

Specialty Lenses {\$?}



Practice Differentiator



Optometric Vision Therapy made a big difference in my life and my career. I was fortunate that my vision problems were caught early in life.

Learning-related vision problems can have a serious impact on a child's education. Don't wait. Take action today!

Larry Fitzgerald
Arizona Cardinals
All Pro Wide Receiver



Photo Copyright Gene Lower / Slingshot Photography



Nutrition

Best Fruits for Health

Sweet potato

Mango

Dry Apricot

Papaya

Peaches

Berries

Oranges

Wild Salmon



Carrots



Eggs



Spinach and Kale



Best Foods for Eye Health



5

Bell Peppers, Broccoli and Brussels Sprouts



6

Sweet Potatoes



7

Oranges



8

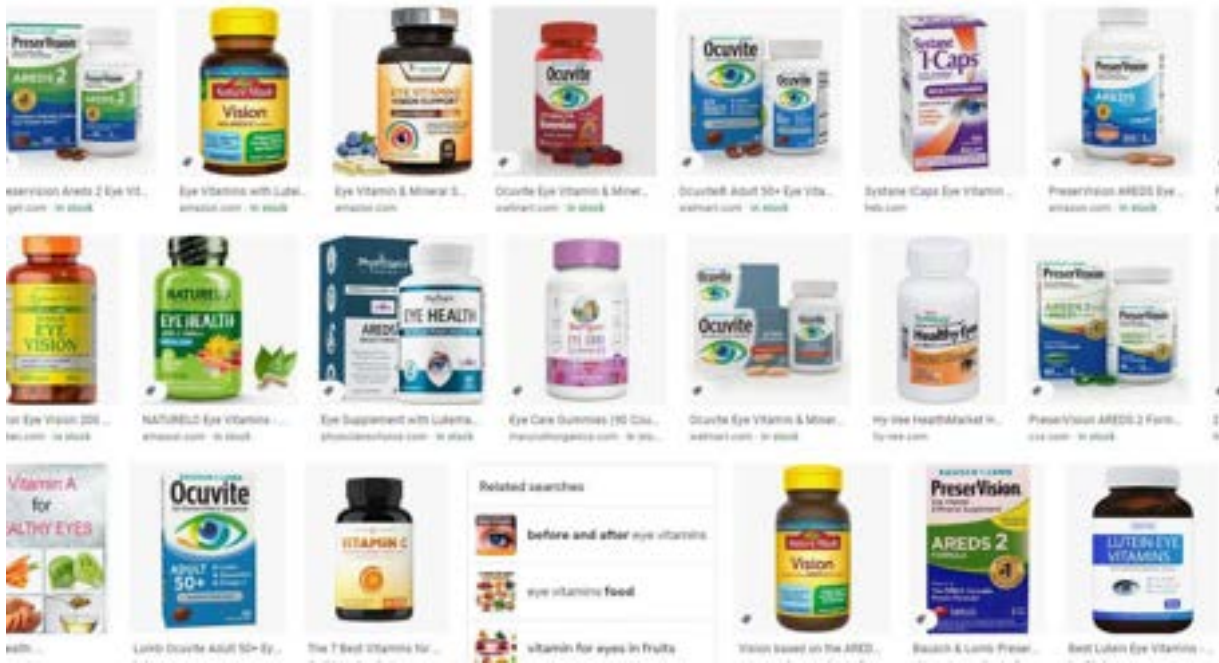
Oysters



9

Wheat Germ





TRIPLE CAROTENOID FORMULA

MacuHealth is the only nutritional vision supplement containing all three macular carotenoids: Lutein, Meso-Zeaxanthin and Zeaxanthin in the same 10:10:2 ratio that makes up macular pigment.

CLINICALLY PROVEN TO RESTORE MACULAR PIGMENT

MacuHealth is specially formulated and clinically proven to rebuild and maximize macular pigment over a lifetime, resulting in enhanced visual performance and aid in the treatment and prevention of age-related macular degeneration.



PATENTED WITH MICRO-MICELLE TECHNOLOGY

Micro-Micelle™ Technology is a new patented process that is clinically proven to increase carotenoid concentrations at the target tissue and deliver the highest level of bioavailability studied to date.

SUPPORTED BY LEVEL-1 SCIENTIFIC EVIDENCE

With over 30 peer reviewed publications that demonstrate the formula's efficacy, bioavailability and safety, MacuHealth is at the forefront of nutritional vision supplements for eye health.



PMO
PRACTISING MEDICAL OPTOMETRY

Aaron McNulty, C.F.A.A.O., offers a look at the research and patient considerations



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Optometry Research and Development

Research is a vital component of the VHA Optometry Service. Through funded research grants that are provided by VA Research Service, the National Eye Institute of the National Institute of Health, and private sources, many VA optometrists actively participate in low vision rehabilitation as well as basic research and multi-center clinical trials. The results of these research projects have resulted in improved ocular disease prevention and low vision rehabilitation outcomes for the rapidly increasing number of significantly visually impaired and legally blind Veterans. Age-related macular degeneration, glaucoma, diabetic retinopathy and cataracts continue to be leading causes of preventable blindness in the United States.

Research can have many forms, functions and purposes within the VHA Optometry Service.

Ophthalmology

MDs won't have enough time

Partner, Hire, Contract or Refer
to OD's

Your own practice within a
practice





Glaucoma + Dry Eye = Total Practice



- Glaucoma Suspect

	Billing Code	Freq of Testing		
		1x/yr	2x / yr	
Comprehensive Exam	92014	132		
Refraction	92015	20		
Fundus Images	92250	41		
Gonioscopy	92020	29		
Pachymetry	76514	12		
OCT RNFL	92133		39	
OCT GCC	92133		39	
VF	92083		66	
UBM	76513	82		
VEP	95930	71		
ERG	92273	137		
Column Total		524	144	
		x1	x2	
		\$524	\$288	\$812

Note: ERG diagnosis is only Glaucomatous Atrophy of optic nerve

Dry eye

Exam	\$140
3 level 3 visits	\$240
Meibography or Oculus exam	\$95
Products, masks, tears -	<u>\$150</u>
	\$622

Specialty

<u>Lipiflow</u>	\$600-\$1200
<u>iLux</u>	\$650+
<u>TempSure</u>	\$1200
IPL	\$1500
Slit lamp photos	\$30

Glaucoma

New Medicare exam	\$140
Med photos 1/ <u>yr</u>	\$40
OCT 1/ <u>yr</u>	\$40
Gonio and or ant seg	\$15
<u>Pach</u> 1/lifetime	\$20
3 IOP/level 3 visits	\$240
VF	\$45
VEP/ERG	<u>\$150</u>
	\$690

Dry eye is variable due to what services outside of insurance might be performed like Tear Care at \$600 per Tx, or IPL at \$1600 for 4 treatments... plus covered office visits of [99212](#)

\$600 to \$1600

AMD would be annual [92014](#) and OCT [92134](#), and two more visits each of [99213](#) and [92134](#), plus sell them supplements making \$40 per bottle X 4.... so worth about \$600 per year.

\$600

Glaucoma, seeing 2-3 X per year, depending on stability of case...

Visit one: Yearly CEE [92014](#) with [92250](#) ~ \$200

Follow up in 4 months exam [99213](#), VF [920183](#) and OCT [92133](#) ~ \$200

Follow up on 4 Months for IOP [99213](#) ~ \$130

\$530



TECH *suite*



Lounge Chair + Nespresso + IPL and your all set



Glaucoma ~ Dry Eye Concierge Practice

3 days p/week @ 15 patients' p/day = 45

45 x **42 weeks** = 1,890 interactions

1,890 / 3 = **630 patients**

630 x \$700 = **\$441,000***

#1 referral source = Rheumatology

***Does not include IPL**

Where does
PPP money
come from?

Private Pay Patients



**Concierge Patients = \$200 per year
630 patients per year = \$126,000**

A close-up, high-magnification photograph of a human eye. The eye is looking slightly to the right. A contact lens is visible on the eye, reflecting light. The eyelashes are dark and well-defined. The background is a soft, out-of-focus light brown color.

Glaucoma + Dry Eye + Specialty Lenses + Nutraceuticals

A close-up photograph of a human eye. A scleral lens is visible, covering the entire surface of the eye. The lens is clear and appears to be made of a smooth material. The eye's iris is visible through the center of the lens. The eyelashes are dark and well-defined. The background is a soft, out-of-focus light brown color.

Glaucoma

+ Dry Eye

+ Scleral Lenses

+ Nutraceuticals

+ Adult Vision Therapy

**What if you
provided
services in
several
practices?**

A close-up, high-resolution photograph of a human eye, showing the iris, pupil, and eyelashes. The eye is looking slightly to the right. The background is a soft, out-of-focus orange and brown gradient.

Referral Sources

Gamers
Primary Care Physicians
Internists
Rheumatologists
Personal Injury Attorneys
Athletic Departments
Optometrists
Ophthalmologists
Sport Teams
Assisted Living Facilities

INSIGHTS FROM OUR CHIEF MEDICAL EDITOR



Accurately Expressing Myopia Control

By Dwight Akerman, OD, MBA, FAAO, FBCLA, FIACLE

Chief Medical Editor, Review of Myopia

NEW IN SEPTEMBER

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PARKER

myeyeDr.
O.D.

vsp™
Ventures

Walmart
Vision Center

TARGET
Optical

LENSCRAFTERS®

Visionworks



EYECARE
PARTNERS

ACUITY
EYECARE GROUP

COSTCO
OPTICAL

The logo for IDOC features the letters 'IDOC' in a large, bold, blue sans-serif font. Below the letters is a horizontal bar divided into five colored segments: light green, lime green, blue, dark blue, and purple.

independent. together.™



ADO
PRACTICE SOLUTIONS



The Power of Independence™



VISION SOURCE®



OPTICAL ALLIANCE
PROUDLY INDEPENDENT OPTOMETRISTS

**Emerging Trends
That Will
Transform Eyecare**

**Jay Binkowitz
Jay@AskJayB.com**