



### PRESIDENT'S DESK



**Kerry Gelb, OD**  
President

## There's Still Time to Register, ALLDocs Members!

The 2024 Annual Meeting is upon us!

There is still time to register so visit [www.alldocsrocks.com](http://www.alldocsrocks.com) to grab one of the last remaining spots. After four days of amazing CE, hands on learning workshops, sponsor presentations, excursions and the pool party we will end the meeting with a Gatsby inspired roaring 20's theme gala event. This event is sure to be the cat's mee-ow!

Great News! Our meeting has been fully COPE approved! This year's speakers include Dr. Shamil Patel, Dr. Tim Earley, Dr. Barry Eiden, Dr. Kathy Weiss, Dr. Kim Friedman, Dr. Cory Lappin, Dr. Paul Chous, Dr. Shalu Patel, Dr. Lisa Hornick, Dr. Kristyna Lensky- Sipes, Dr. Mark Marciano, Dr. Joe Pizzorno, and Dr. Laura Chonko. What an impressive lineup! Lots of surprises and special features also in store for this year.



### GALLERY



## 2024 Annual Meeting

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## An Important Ocular Sign of Heart Disease

Retinal emboli most commonly stem from vascular disease, are believed to arise from carotid arteries, coronary arteries, or cardiac valves, and typically appear transient.<sup>1,2</sup> Roughly 80% of retinal emboli that originate from vascular disease are composed of cholesterol.<sup>3</sup> Risk factors for retinal emboli include older age, male sex, hypertension, high total cholesterol, coronary artery disease, and a history of CABG surgery, but the strongest risk factor is smoking.<sup>1,3</sup> Many studies suggest patients with retinal emboli have an increased risk of stroke-related, all-cause, and possible cardiovascular mortality.<sup>4,5</sup>

### Hollenhorst Plaque

Cholesterol plaque is the most common type seen during an optometric examination.<sup>1</sup> A Hollenhorst plaque is a type of embolus formed from cholesterol deposits that usually originates from the ipsilateral carotid artery.<sup>1</sup> A Hollenhorst plaque can dislodge on its own and may not produce clinical signs or symptoms, but retinal ischemia may occur in some cases if the embolus does not dislodge and blocks perfusion of retinal blood in that area.<sup>6</sup> Symptoms may include sudden, painless, unilateral loss of vision, although visual acuity varies depending on the location of the Hollenhorst plaque.<sup>1</sup>

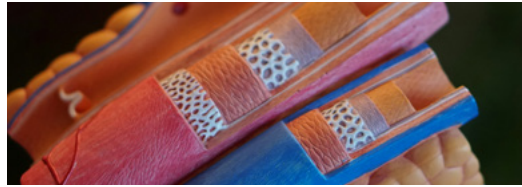
The consensus among clinicians is that urgent workup is needed if patients are found to have symptomatic Hollenhorst plaques.<sup>7</sup> Since Hollenhorst plaques are common characteristics of an artery occlusion, the presence of retinal ischemia or infarction warrants urgent management.<sup>1</sup> Other research shows that patients with asymptomatic retinal emboli have a 12% higher risk of cerebrovascular events.<sup>8</sup> These findings suggest asymptomatic patients may still be at risk of serious systemic cardiovascular disease.<sup>1</sup>

### Treatment

Since there is a lack of evidence from random controlled trials, there is currently no standard treatment approach for managing patients with Hollenhorst plaques.<sup>1</sup> Treatment decisions are based on a variety of factors, including:<sup>1</sup>

- Age
- Comorbidities
- Smoking history
- Symptoms
- Stenosis severity

A variety of medical interventions, including treatments like antiplatelet therapy, cholesterol-lowering medications, carotid endarterectomy, and carotid angioplasty, have been found to be safe and effective for lowering risks of cardiovascular and cerebrovascular events.<sup>1</sup>



### Education & Referral

Optometrists are often at the frontlines for addressing significant carotid artery disease in patients with Hollenhorst plaques.<sup>1</sup> It is critical to review the patient's medical history and assess it for ocular and systemic symptoms so that appropriate referrals can be made for carotid doppler ultrasound, CTA, or magnetic resonance angiography.<sup>1</sup> At minimum, findings of Hollenhorst plaques should be communicated to the patient's primary care physician. Patients should also be educated on ocular and non-ocular symptoms of ischemic attacks and be advised to report to the emergency department immediately if such symptoms occur.<sup>1</sup> Regardless of their symptom presentation, it is important to educate patients on the serious links between Hollenhorst plaques and cerebrovascular and cardiac disease, and the need for referral and prompt testing.<sup>1</sup>

### SOURCES

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## Breathing Technique Helps Glaucoma Patients



Researchers recently evaluated the effect of the “365-breathing technique”—in which time is spent taking slow, deep breaths three times per day—on intraocular pressure autonomic functions and stress biomarkers in patients with primary open angle glaucoma. For the study, 40 subjects in an intervention group followed the 365-breathing technique for three times a day at a breathing rate of six cycles per minute for 5 minutes in addition to their pharmacological glaucoma treatment.

Investigators found that the breathing technique caused a significant reduction in IOP (2 mm Hg) in the intervention group after 6 weeks of practice. The technique also reduced serum cortisol (a stress biomarker) and improved autonomic dysfunction in glaucoma patients. The authors cautioned that the 365-breathing technique should not be used as a standalone modality to reduce IOP, but it can be used as an adjuvant therapy along with glaucoma medications.

### SOURCE

Harvey DH, Roberts CJ, Mahmoud AM, Nuñez FM, Ma Y, Fleming GP. Biomechanical and vascular metrics between eyes of patients with asymmetric glaucoma and symmetric glaucoma. *J Glaucoma*. 2024 Jan 9 [Epub ahead of print]. <https://www.reviewofoptometry.com/news/article/breathing-technique-reduces-iop-stress-in-glaucoma-patients>

## Hiring New Staff? Look for These Red Flags



When hiring for a new position, it is critically important to be on the lookout for potential red flags that might appear in someone's application.<sup>1</sup> Identifying these red flags early can save you time during the hiring process by avoiding bringing in candidates who might be a bad fit for the position.<sup>1</sup> Below are some of the red flags that have been associated with a poorly qualified job applicant:<sup>1</sup>

### Spelling & Grammar

A resume with any deficiencies in spelling and grammar should be avoided. If a candidate does not use correct spelling and grammar in their resume, it is almost a guarantee they will not do so in your correspondence with the candidate, and it shows a lack of preparedness.<sup>1</sup>

### Short Tenure at Previous Jobs

Practices typically seek employees who will stay with them for the long haul. A resume with short durations in previous positions—less than a year, for example—can be a red flag. The candidate may be a job hopper, so they might leave your office quickly. In some circumstances, however, short employment timeframes can be explained during the interview.<sup>1</sup>

### Outdated Information

When a resume has outdated information—such as old contact information, no current job history, or job details that have not been updated—it sends a message that the applicant does not care. If they will not take the time to invest in their own resume, the candidate is not showing that they will invest themselves in your practice.<sup>1</sup>

### False Claims

A candidate who has padded their resume typically gives too much credit or claims to know more than what makes sense for their listed position. It is critically important to sniff out any claims in resumes that may have been exaggerated.<sup>1</sup>

### Time Gaps

A thorough resume should account for the entire employment history of a potential hire and should not show unexplained time gaps. Missing information on a resume can often be easily explained if the candidate was using that time productively, such as raising a family, caring for a loved one, or going to school. However, practice owners should beware because time gaps can also be a way for an applicant to avoid disclosing concerning patterns, such as job hopping. If you encounter missing information but still wish to pursue a candidate, inquire about it during the interview.<sup>1</sup>

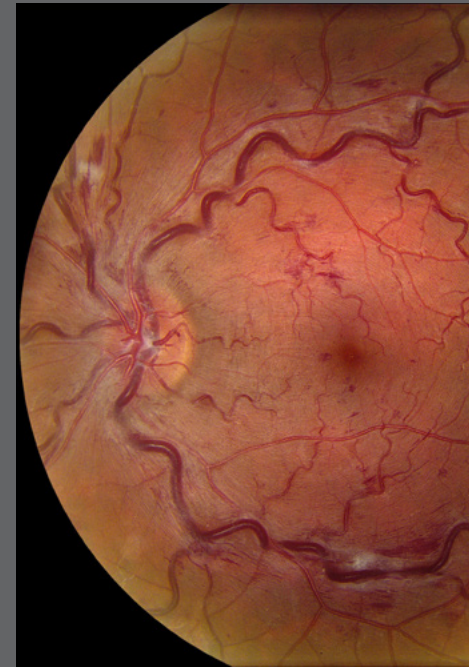
### First Impressions Matter

A resume is the first step in deciding whether a candidate could be a good fit for your office. Although resumes provide insight into a candidate's qualifications and background, the most useful information often comes from picking up on any red flags.<sup>1</sup> If you encounter resumes where there is a lack of attention to detail or there are concerns about an applicant's dependability or honesty, eliminate those resumes immediately to avoid hiring a problematic employee.<sup>1</sup>

#### SOURCE:

1. Fulmer P. Staffing: be alert for résumé red flags. *Optometric Management*. 2024;59:30. <https://www.optometricmanagement.com/issues/2024/january/be-alert-for-resume-red-flags/>

## Examining Risks After Retinal Vein Occlusion



A Stanford University study has found that there is a higher risk of death, stroke, and myocardial infarction (MI) among people with a retinal vein occlusion (RVO). An analysis of over 45,000 patients diagnosed with RVO showed that these risks persisted at follow ups of 1, 5, and 10 years. There was minimal risk of subsequent deep vein thrombosis or pulmonary embolism in RVO patients, except for a mildly elevated risk of deep vein thrombosis at 1 year. However, this trend did not continue out to 5 or 10 years of follow-up.

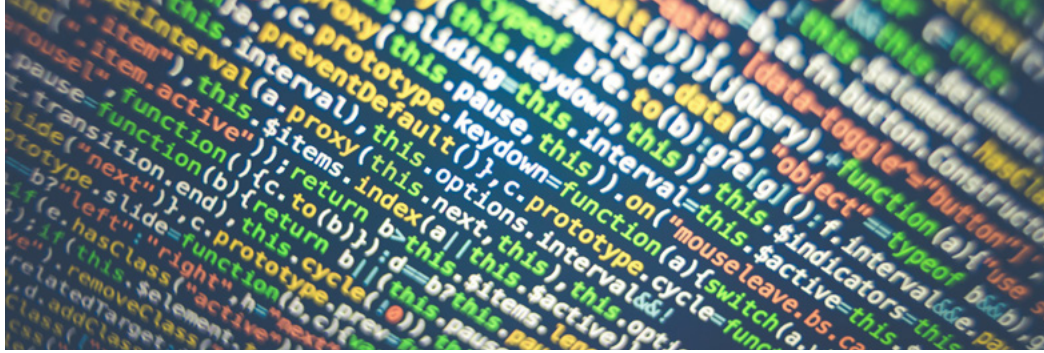
The researchers noted optometrists should be aware of the elevated risk of death and vascular events in patients who present with RVO. They added that it is critical to conduct long-term systemic evaluations for cardiovascular risk factors with primary care providers to help manage patients who present with RVOs and potentially minimize subsequent vascular events.

#### SOURCE

Wai KM, Ludwig CA, Koo E, Parikh R, Mruthyunjaya P, Rahimy E. Risk of stroke, myocardial infarction, deep vein thrombosis, pulmonary embolism, and death after retinal vein occlusion. *Am J Ophthalmol*. 2024;257:129-136. <https://www.reviewofoptometry.com/news/article/study-finds-increased-risk-of-stroke-heart-attack-death-after-rvo>



## Data Breaches: Protect Your Practice



Cyber security is becoming an increasing concern as businesses are at increasing risk for cyber attacks and data breaches.<sup>1</sup> A recent report found that 374 ransomware attacks were levied against health organizations between 2016 and 2021, exposing the personal health information of 42 million patients.<sup>2</sup> According to experts, medical records are highly valued data, and thieves have become increasingly skilled at obtaining it.<sup>1</sup> Optometry practices may not think about risks of data breaches, but these attacks can happen at any practice, regardless of its size.<sup>1</sup>

Below are steps optometry practices can take to prevent cyber attacks.

### Update Internet Use Policies

Establishing policies and procedures on internet use is a vital first step to protect practices against security breaches.<sup>1</sup> Optometry practices should develop trainings for personal device use among staff and a policy for personal internet use because breaches can often result from someone clicking on something they should not have clicked. Another option is to establish “permissions” on the practice’s router. In this scenario, practice owners determine which websites will be accessible. However, while limiting websites adds a layer of protection, it can also be frustrating for staff members.<sup>1</sup>

### Upgrade & Protect Your Router

Optometry practices are recommended to upgrade to commercial-grade routers to gain better protection from malicious users.<sup>1</sup> Consumer-grade routers are significantly less secure than commercial-grade routers, making it easier for criminals to breach the router and connect to your network. If your practice does not have

a commercial-grade router, contact a local IT company to see about costs.<sup>1</sup> In addition, you may want to reconsider offering free Wi-Fi because it provides other people with direct access to the router.<sup>1</sup>

### Promote Password Protection

Encourage staff to take time to create better passwords, change them regularly, and keep passwords in a secure place. The strongest passwords have a variety of letters, numbers, and symbols.<sup>1</sup>

### Use Encryption & Back-Ups

Encrypting data is another way to protect practices against data breaches.<sup>1</sup> Using encryption programs can automatically protect files and make it more difficult for criminals to access data. In addition, it is important to compile back up files on a regular basis so the practice will still have a copy of the records in case of a data breach. Back-up should include your data files as well as the entire system with all its configurations.<sup>1</sup>

### Be Prepared, Recognize the Threat

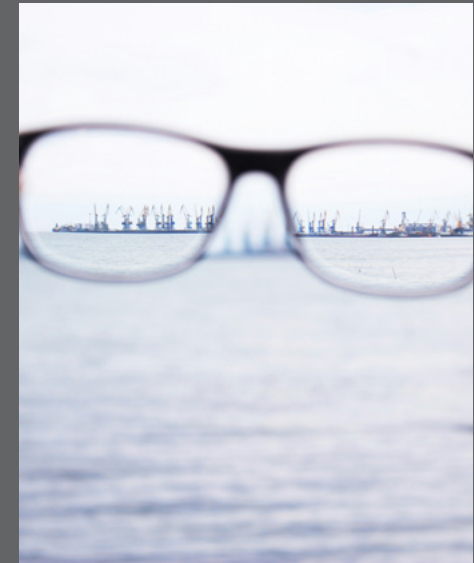
When deciding on how to protect yourself against data breaches, it may be overwhelming to think about where to begin. Consider bringing in an outside vendor that specializes in cyber security. These companies can help identify weak spots and might also help with IT and computer safety training.<sup>1</sup>

#### SOURCES:

1. Getz L. Protect your practice against data breaches. *Optometric Management*. 2023;58:31-33. <https://www.optometricmanagement.com/issues/2023/june/protect-your-practice-against-data-breaches/>.
2. Neprash HT, McGlave CC, Cross DA, et al. Trends in ransomware attacks on US hospitals, clinics, and other health care delivery organizations, 2016-2021. *JAMA Health Forum*. 2022;3(12):e224873.



## Projecting the Burden of Myopia



A study predicts that between 27% and 43% of uncorrectable visual impairment in the United States population in 2050 will be directly attributable to myopia. The results, published in *Scientific Reports*, showed that 222 million people are projected to be myopic and 48 million will have high myopia by 2050. Of note, the authors reported that each 10% increase in the prevalence of myopia could result in another million cases of visual impairment.

These projections suggest it is critically important to identify the most appropriate methods to reduce the future burden of myopia-related visual impairment. The researchers noted that continued efforts to prevent myopia, delay its onset, and slow its progression should have a profound influence on future levels of visual impairment. They advised against underestimating the prevalence of visual impairment and recommended that future research consider the increasing prevalence of myopia among the aging population.

#### SOURCE

Bullimore MA, Brennan NA. The underestimated role of myopia in uncorrectable visual impairment in the United States. *Sci Rep*. 2023;13(1):15283. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10504322/>

## GLP-1 Receptor Agonists: Exploring Their Impact on the Eyes

Over the past few years, glucagon-like peptide 1 receptor agonists (GLP-1RAs), like semaglutide, have emerged as important therapies in treating type 2 diabetes and for managing weight.<sup>1</sup> As optometrists, it is important to be mindful of any potential positive or adverse effects that these medications might have on their overall health or their preexisting health conditions.<sup>1</sup>

### Overview on GLP-1

GLP-1 activates insulin release and inhibits glucagon release. There are currently four GLP-1RAs on the market, and these incretin-based therapies are synthetic mimetics of GLP-1. Studies show that GLP-1RAs vary in their efficacy in reducing glycated hemoglobin (HbA1c) levels, magnitude of weight loss, duration of action, dosing frequency, and side effects.<sup>2</sup>

GLP-1RAs can contribute to improved glycemic control by lowering HbA1c and promoting weight loss without causing hypoglycemia, a notable advantage over sulfonylureas and meglitinides.<sup>1</sup> Of note, gastrointestinal side effects are common, particularly during drug initiation and with dose escalation. Nausea is most often reported by patients, but vomiting, diarrhea, abdominal pain, and/or constipation have also been documented.<sup>3</sup>

### GLP-1RAs & Diabetic Retinopathy

The phenomenon of worsening diabetic retinopathy (DR) is a well-established, paradoxical retinal finding that has been linked to improved blood glucose levels.<sup>4-8</sup> However, there is no established DR screening protocol when initiating therapy with GLP-1RAs. Communication with primary care providers and endocrinologists regarding retinal health and the severity of any existing DR is critical before initiating GLP-1RAs.<sup>9</sup>

If DR is observed with GLP-1RA use, it is important to quickly follow up with patients to help rule out treatable retinopathy. The presence of severe non-proliferative DR or proliferative DR requires further intervention.<sup>10</sup>

### GLP-1RAs & Glaucoma

GLP-1Rs are found in neurons and glial cells throughout the central nervous system and in ganglion cells of the retina and optic nerve.<sup>11</sup> Recent studies have demonstrated neuroprotective effects when using GLP-1RAs in people with Alzheimer's and Parkinson's disease, stroke, and ocular hypertension.<sup>1</sup> Another recent

study of patients who newly started GLP-1RA therapy found a lower risk of developing open-angle glaucoma.<sup>12</sup> Other research has shown that people using GLP-1RAs for 3 or more years had a higher risk reduction of 29%.<sup>13</sup>

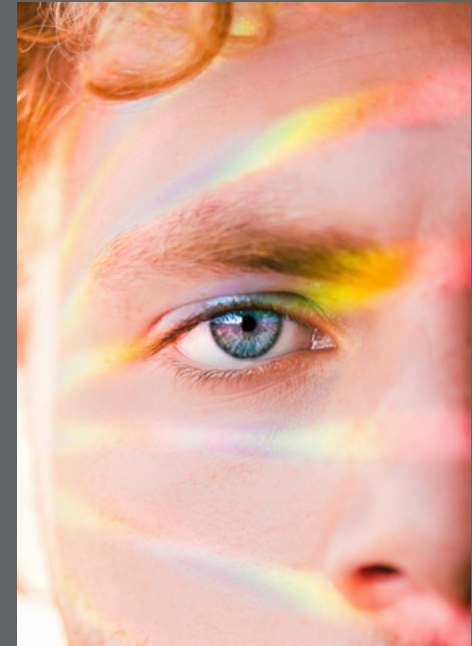
### A Promising Outlook

Along with potential implications for helping treat other neurodegenerative diseases, the association between using GLP-1RA therapies and a decreased risk of glaucoma indicates this may be a promising avenue for targeted treatment.<sup>1</sup> GLP-1RAs offer patients hope in the potential for using transformative therapies in glycemic control, weight management, neuroprotection, and cardiovascular and renal protection.<sup>1</sup> As innovative drug delivery systems continue to emerge, the potential of GLP-1RAs in optometry is expected to rise, making it critical for optometrists to stay abreast of the latest emerging data with these therapies.

#### SOURCES:

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## Recurrence Common in Acute Anterior Uveitis



Previous research has shown that anterior uveitis consists of up to 92% of cases and contributes considerably to the overall burden of uveitis-related vision loss. New research from investigators in New Zealand has found that approximately 50% of patients with acute anterior uveitis will develop recurrence in the ipsilateral eye and roughly 25% will have recurrence in the contralateral eye.

The study, published in *Ophthalmology*, showed that recurrence occurred in the ipsilateral eye in 45.5% of cases and in the contralateral eye in 27.3% of cases across the cohort. The overall risk of recurrence in either eye was 49.5%, with 14.8% of patients experiencing both ipsilateral and contralateral recurrence.

The authors concluded that a clearer understanding of the risk of recurrence and precipitants for relapse in anterior uveitis may help clinicians have more informed discussions on the prognosis and disease course with patients.

#### SOURCE

Brodie JT, Thotathil AZ, Jordan CA, Sims J, Niederer RL. Risk of Recurrence in acute anterior uveitis. *Ophthalmology*. 2024;S0161-6420(24)00323-3.

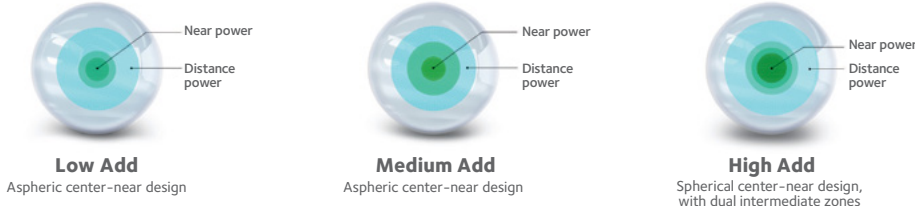


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## SUCCESSFUL AND EASY FITTING<sup>2</sup>

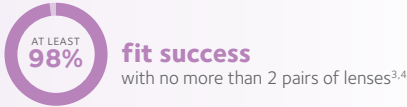
**STEP 1** Using up-to-date spectacle prescription, determine spherical equivalent distance power (corrected for vertex distance).

**STEP 2** Determine distance eye dominance with +1.00D blur method; if inconclusive, determine dominance with sighting method.

**STEP 3** Select distance sphere power for each eye with add powers as indicated with the diagram.

**Tip:** If optimization is needed, enhance with +/- 0.25D. Do not change the Add Power.

INITIAL CONTACT LENS SELECTION		
Spectacle Rx Add	Dominant Eye	Non-Dominant Eye
+0.75D to +1.25D		LOW
+1.50D to +1.75D	LOW	MED
+2.00D to +2.50D		HIGH



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Contact Lens Calculator is a tool for your practice that speeds up the contact lens selection process, especially when it comes to fitting toric and multifocal lenses.<sup>7,8</sup>



## A Closer Look at Computer-Aided Ortho-K Fitting



Orthokeratology (Ortho-K) lenses have been widely adopted for slowing the progression of myopia, but these lenses must be customized to accommodate each patient's unique corneal parameters to achieve a proper fit. Recently, a new lens fitting approach using computer-aided design and manufacturing techniques has emerged, allowing optometrists with less experience and/or busier schedules to offer these lenses as a treatment option for myopia.

A recent study compared the safety and efficacy of computer-aided fitting in Ortho-K to traditional methods. Researchers found that both methods achieved similar outcomes, but computer-aided Ortho-K fitting offered slightly better performance in correcting myopia and improving uncorrected visual acuity.

The study group noted that the computer-aided fitting method outperformed traditional lens fitting approaches in some respects, such as:

- Reducing reliance on highly skilled optometrists
- Shortening time needed for lens fitting
- Minimizing the need for a large number of trial lenses

### SOURCE

Sun Y, Peng Z, Zhao B, et al. Comparison of trial lens and computer-aided fitting in orthokeratology: a multi-center, randomized, examiner-masked, controlled study. Cont Lens Anterior Eye. 2024;102172. 2023;S0161-6420(23)00886-2.

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