



A NEW LOOK AT

Digital Eye Strain

Exclusive U.S. consumer research shows screen time is still rising, digital eye strain is prevalent, and opportunity abounds for eye care professionals to help.

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Introduction

In today's world, digital devices are everywhere you turn. The evolution of the smartphone has brought communication, entertainment, and work into the palms of our hands, making it easier than ever to be "on" from anywhere, at any time. This level of access, coupled with the regular use of computers, tablets, and e-readers, means that many people are spending significant portions of their days looking at screens—and their eyes are undoubtedly feeling the strain.^{1,2}

We know that digital device use increased during the COVID-19 pandemic, when people were working, learning, and staying connected to the world from home.^{3,4} But what does screen time look like now? A few years ago, many people remained unaware of the symptoms of digital eye strain, or at least the correlation between the symptoms and their digital device use.⁵ Is that still the case?

At CooperVision, we set out to gather new data to help practitioners better understand current habits, the prevalence of digital eye strain, and awareness of the condition among patients. In addition, we examined whether patients are talking to their eye care professionals about digital device use and the impact to their eyes, and ultimately what that means for eye care practices. We also looked at what tools and techniques people are using to try to reduce digital eye strain.

The pandemic accelerated the dominance of technology in our lives and made us more digital creatures.^{6,7} And post-pandemic, we found that screen time only continues to rise. As a result, most people are experiencing symptoms of digital eye strain, yet they are still not having this conversation with their eye care professionals—even though they are interested in solutions. These valuable insights and more are discussed in this report, which we encourage you to read and share with your colleagues and staff.

A clear takeaway from this research is that eye care professionals still have substantial opportunity to proactively address digital eye strain as part of primary eye care, as nearly all patients are living digital lifestyles and could benefit from advances in technology to lessen the impact on their eyes. CooperVision is a leader in this space, developing innovative contact lenses to help tiredness and dryness associated with digital device use.⁸ Together, we can take on this modern-day vision challenge.



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Survey Methodology & Respondents

CooperVision recently commissioned Prodege, a global consumer insights firm, to conduct research on digital eye strain; the results of that survey are shared in this report.⁹ From October 16–22, 2023, 750 adults ages 18–44 residing in the U.S.—all of whom require vision correction—participated in a custom-designed survey using a proprietary online tool. The survey participants were limited to those requiring prescription eyewear and/or contact lenses to ensure respondents have interacted with an eye care professional.

Respondents were balanced against the U.S. general population for several other demographic categories including gender, household income, education, location, and race, to present an accurate representation of the glasses- and contact lens-wearing public.

Among respondents, 41% wear contact lenses at least part time. Furthermore, 17% indicated they predominantly wear contact lenses for vision correction, 59% exclusively wear glasses, and 24% consider themselves to be dual wearers.

Latest Trends in Digital Device Use

There is no denying that Americans experienced accelerated adoption of screen-based technologies during the pandemic and continue to spend a large portion of their days staring at digital devices.¹⁰

When asked to quantify their time in front of screens, over half of respondents said they spend on average six or more hours a day on digital devices, and one in four said they spend an average of a whopping nine hours or more looking at a screen.^{11,12}

In terms of the devices on which people are spending the most time, smartphones are the biggest draw, as shown below. 79% of respondents said they spend three hours or more on these particular devices (Figure 1). For many, this behavior is on the rise, with the majority (62%) of those surveyed saying their smartphone usage has greatly increased in the past two years.¹³



Figure 1. Daily smartphone use.

While increased time on smartphones was the most prevalent, respondents reported escalating screen time on other devices as well.¹⁴

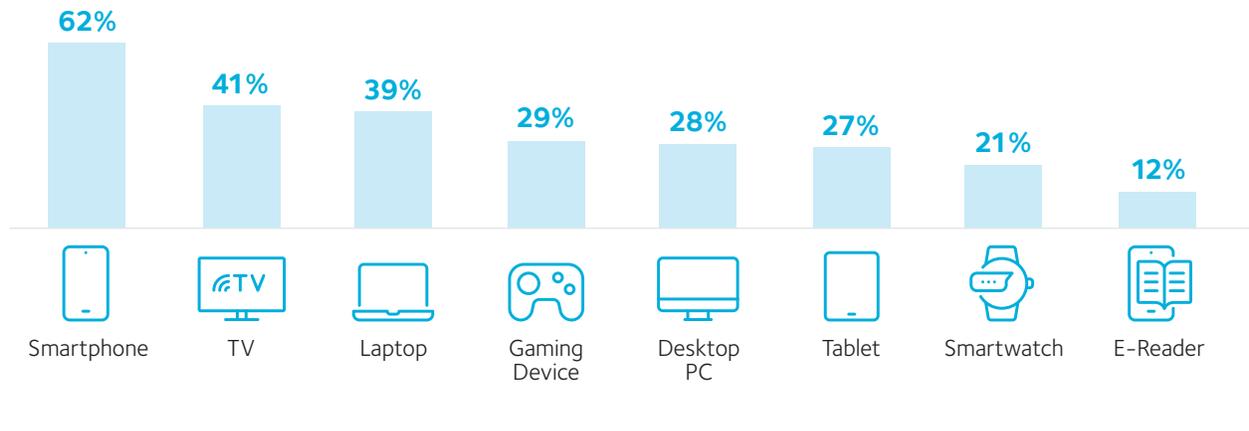


Figure 2. Percentage of respondents who indicated they increased their device use.

How Common is Digital Eye Strain?

Most simply, digital eye strain is defined as the ocular discomfort felt after two or more hours in front of a digital screen.¹ As shown in the Daily Smartphone Use infographic, given the majority of people are spending at least three hours a day on smartphones alone, it comes as no surprise that nearly seven in 10 respondents reported experiencing symptoms associated with digital eye strain, with nearly four in 10 saying they experience symptoms multiple times per week or more.^{15,16}

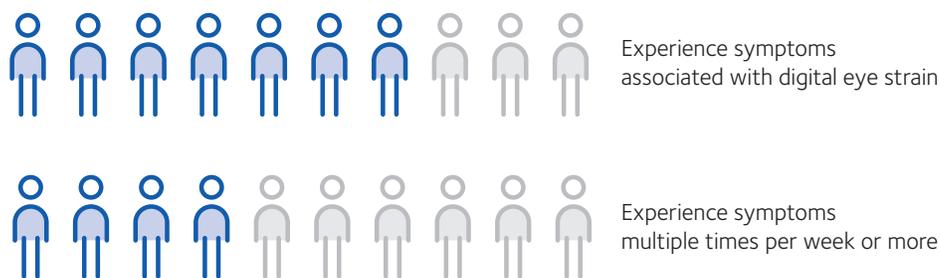


Figure 3. Respondents experiencing symptoms associated with digital eye strain.

While digital eye strain is most commonly associated with eye tiredness and dryness, there are a wide range of symptoms, including:^{1,17}

- Eye dryness
- Eye irritation
- Blurry/double vision
- Tearing / watery eyes
- Eye burning
- Eye strain or soreness
- Headaches
- Text moving / floating

In the past, eye care professionals have shared that many patients have been unaware that the symptoms they have experienced were related to their digital device use.¹⁸ This no longer seems to be the case. When survey respondents were asked to explain what causes their eye tiredness, nearly half of patients believed it was caused by screen time, indicating significant awareness of the connection between digital device use and ocular discomfort.¹⁹

The Opportunity to Combat Digital Eye Strain

With so many patients now aware that their eye tiredness and dryness can be caused by digital device use, and post-pandemic usage remaining consistently high, they are undoubtedly looking for ways to address these symptoms. Of the survey respondents who have digital eye strain, 99% had tried at least one method for reducing symptoms.²⁰ The specific tools and techniques that people try vary significantly, and overall, awareness or implementation of each method remains low.

The majority of respondents have not heard of, have not tried, or do not regularly use many of the most commonly cited tools and techniques to help alleviate the symptoms of digital eye strain.²¹ These include the 20-20-20 rule; lubricant eye drops; blue light screen filters; blue light glasses; maintaining proper posture; and glasses or contact lenses designed to help with the symptoms of digital eye strain.²²

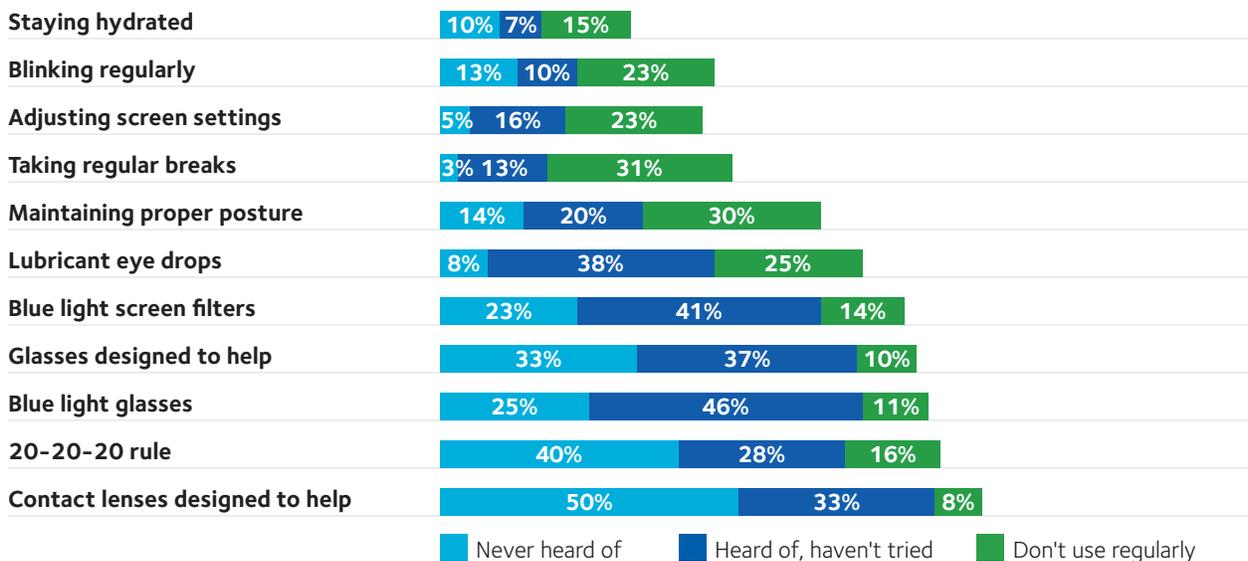


Figure 4. Awareness/usage of tools and techniques to relieve the symptoms associated with digital eye strain.

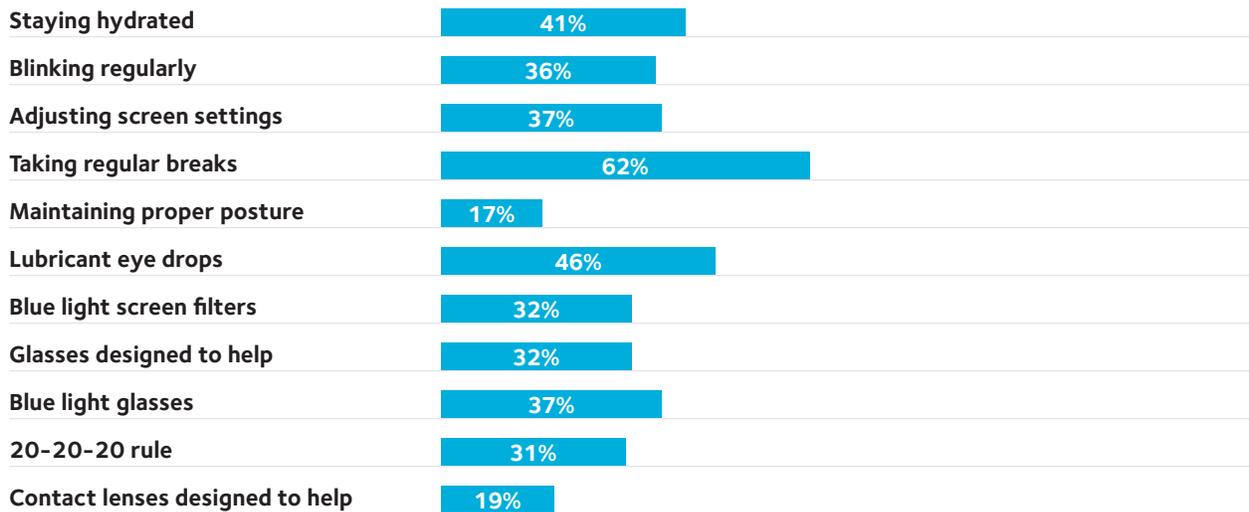


Figure 5. Percentage of respondents that stated eye care professionals recommended these methods for the affects of digital device usage.

Contact lenses designed to help with the symptoms associated with digital eye strain were the least known tool, with half of respondents reporting they had never heard of them—though a majority said they would be interested.^{23,24}

However, to learn more about contact lenses designed for this purpose—or any of the other tools and techniques—patients could speak with their eye care professionals about digital eye strain. Yet nearly 60% of respondents said they have never talked to an eye care professional about how digital device use affects their eyes.²⁵ Of those respondents who had the conversation, only 19%, per the data above (Figure 5), said that the eye care professional had recommended contact lenses designed to help with the symptoms of digital eye strain.²⁶

Most patients look to their eye care professionals for education and guidance on the latest innovations in eye care, and with so many patients on digital devices, there is significant opportunity for improvement. This starts with simply having a conversation and prescribing MyDay Energys® and Biofinity Energys®; the only contact lenses to offer the unique combination of DigitalBoost™ Technology and Aquaform® Technology to help with eye tiredness and dryness associated with digital device use.⁸

Starting the Conversation

1. Understand the patient's lifestyle and experience with digital eye strain.

- How many hours per day do you think you spend using all digital devices (smartphones, TVs, laptops, gaming devices, etc.)?
- How often do you experience the symptoms of digital eye strain while on digital devices (eye tiredness, dryness, tearing, headaches, etc.)?

2. Determine what they're doing to cope.

- What have you tried to help with these symptoms following digital device use?
- How effective has this been for you?

3. Establish a partnership with the patient.

- Together, let's find a solution that works best for you.

4. Be the expert. Provide recommendations for addressing digital eye strain.

- Here is what I recommend...
- Did you know there are contact lenses designed to help with tiredness and dryness associated with digital device use?⁸

Breakthrough Contact Lenses Specifically Designed to Take on the Challenge

CooperVision MyDay Energys[®] daily disposable and Biofinity Energys[®] monthly replacement contact lenses combine an innovative aspheric lens design and advanced material technology to help with eye tiredness and dryness associated with digital device use.⁸

DigitalBoost™ Technology



DigitalBoost™ Technology is a single vision aspheric lens design that delivers a +0.3D boost, which may help ease strain on eye muscles so the wearer can shift focus from on screen to off with less effort.^{*27} This design is unique to MyDay Energys[®] and Biofinity Energys[®], making them the only contact lenses with DigitalBoost™ that can help with eye tiredness.

Aquaform® Technology



Aquaform[®] Technology retains water from core to surface without the need for surface coating or added wetting agents in the lens material, resulting in incredible comfort, which can help eyes feel less dry, even during times of reduced blinking.²⁸

*Based on a statistically significant difference of the mean change in Accommodative Microfluctuations and when compared to a lens without DigitalBoost™/Digital Zone Optics[®] after reading on an iPhone 5 for 20 minutes held at a distance of 25 cm. Study conducted with Biofinity Energys and sphere.



In studies, patients rated MyDay Energys® and Biofinity Energys® nine out of 10 for comfort, and eight out of 10 patients agreed that the lenses help reduce eye tiredness.⁺²⁹⁻³²

MyDay Energys®

- More than **8 out of 10** contact lens wearers agreed that they experienced an **improvement in eye tiredness** while wearing MyDay Energys®³²
- **9 out of 10** wearers agreed that they experienced **clear, reliable vision** while wearing MyDay Energys®³³
- Wearers rated MyDay Energys® **4.5 out of 5 for all-day comfort**³⁴

Biofinity Energys®

- Patients experiencing symptoms of digital eye strain had **high overall satisfaction** with their level of eye tiredness and dryness when wearing Biofinity Energys®³⁵
- **4 out of 5** patients experiencing symptoms of digital eye strain **would recommend** Biofinity Energys® to friends or family after trialing the lens³⁶
- Wearers rated Biofinity Energys® **9 out of 10 for overall comfort**³⁰

MyDay Energys® and Biofinity Energys® provide eye care professionals with the unique opportunity to prescribe an innovative lens that can help patients with some of the symptoms of tiredness and dryness associated with digital device use, which the latest research shows they want—and need.³⁷ Any patient typically fit into a spherical contact lens could be a candidate for either MyDay Energys® or Biofinity Energys®.²⁹

Conclusion

For practitioners, it is safe to assume that virtually every patient in the chair is a digital device user. It's not a matter of whether they use digital devices, but how many, how often, and for how long. Prolific screen time will continue to be the norm in today's "always on" society, and these habits go hand in hand with digital eye strain.¹⁷

As patients' trusted eye care source, eye care providers have a unique opportunity to educate about digital eye strain, and the impact of increased digital device use. With MyDay Energys® and Biofinity Energys® in the toolbox, eye care professionals have the opportunity to potentially grow their business and have the power to make a difference in the lives of many of their patients.

That's what we call a win-win.

+ MyDay 8.8 vs 9.3 for MyDay Energys, p<0.01.

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33. CVI data on file 2023. US in market assessment survey conducted by ECPs: n=207 habitual contact lens patients refit into MyDay Energys® contact lenses after one week of daily wear. Top 2 Box: 90%.
34. CVI data on file 2023. US in market assessment survey conducted by ECPs: n=207 habitual contact lens patients refit into MyDay Energys® contact lenses after one week of daily wear.
35. CVI data on file 2022. US in market assessment survey conducted by ECPs: N=62, habitual contact lens patients refit and new contact lens patients fit into Biofinity Energys® contact lenses after one week of wear and currently experiencing digital eye strain. Average Rate 8.7/10.

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36. CVI data on file 2022. US in market assessment survey conducted by ECPs: N=62, habitual contact lens patients refit and new contact lens patients fit into Biofinity Energys® contact lenses after one week of wear and currently experiencing digital eye strain. 84% went on to recommend to family and friends.
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