



How Lifestyles Affect Your Eyes: Eye Health Tips for Working Professionals

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Abstract

The lifestyle changes brought about by modern work environments, particularly the increased reliance on digital devices, have introduced new challenges for ocular health. Working professionals are at greater risk of developing conditions like digital eye strain (DES), dry eye syndrome, and refractive errors due to prolonged screen exposure, sedentary habits, and poor diet. This article explores how this lifestyle factors impact eye health and offers practical, evidence-based recommendations for mitigating these effects. Emphasizing a proactive approach to ocular health, it aims to provide working professionals with actionable strategies for protecting their vision.

Keywords: Digital Eye Strain; Eye Health; Blurred Vision

Abbreviations

AOA: American Optometric Association; CVS: Computer Vision Syndrome; DES: Digital Eye Strain; HEV: High-Energy Visible; AREDS: Age-Related Eye Disease Study.

Introduction

The integration of digital technology into nearly every facet of modern work has revolutionized professional life but has also placed unprecedented demands on the visual system. The American Optometric Association (AOA) defines computer vision syndrome (CVS), or digital eye strain (DES), as a group of eye- and vision-related problems that result from prolonged computer, tablet, e-reader, and smartphone use. Studies indicate that as many as 90% of people who use digital devices for more than three hours

per day experience symptoms of DES [1]. This prevalence raises concerns about the long-term impact of screen use on ocular health, particularly in working professionals who spend the majority of their day in front of screens. Beyond digital eye strain, other factors such as poor nutrition, lack of physical activity, insufficient sleep, and environmental conditions also influence eye health. This article reviews the various lifestyle factors affecting vision and provides practical recommendations to protect the eyes of working professionals from these daily stressors.

Digital Eye Strain and Computer Vision Syndrome

Digital Eye Strain (DES) is one of the most commonly reported complaints among working professionals. It is

characterized by symptoms such as blurred vision, dry eyes, headaches, and neck or shoulder pain. Computer Vision Syndrome (CVS) is a broader term encompassing these symptoms and their relationship to prolonged digital device use. The pathophysiology of DES is multifaceted, involving both ocular and environmental factors. The reduced blink rate during digital screen use-reported to be up to 50% less than the normal blink rate-leads to increased tear evaporation and dry eyes [2]. In addition, the continuous focus on near objects strains the ciliary muscles, which control lens accommodation, contributing to eye fatigue and blurred vision.

Recommendations to Alleviate Digital Eye Strain

The 20-20-20 Rule: Encourage frequent breaks by looking away from the screen every 20 minutes at an object 20 feet away for at least 20 seconds to relax the ciliary muscles. **Ergonomic Workstation Setup:** Proper ergonomics are critical in reducing strain. The screen should be placed 20 to 26 inches from the eyes, with the top of the monitor at or slightly below eye level. This positioning reduces the need for constant head movements and prevents neck strain [3]. **Adjusting Screen Settings:** Reducing screen brightness and using anti-glare screens can minimize glare-related discomfort. Additionally, many devices now include blue light filters to reduce exposure to high-energy visible (HEV) light, which has been linked to retinal damage in experimental models [4].

Environmental Factors and Eye Health

Lighting and Glare: Suboptimal lighting in the workplace-whether too dim or overly bright-can exacerbate eye strain. Fluorescent lighting, commonly found in office settings, tends to increase glare on screens, which forces the eyes to work harder to focus.

Recommendations for Optimizing Lighting

Use ambient lighting or desk lamps with adjustable brightness to minimize harsh glare and shadows. Position screens perpendicular to windows to avoid direct sunlight reflecting off the screen, and adjust the angle of monitors to reduce reflection from overhead lights.

Air Quality

Many office environments are climate-controlled, with dry air from heating or air-conditioning systems contributing to dry eye syndrome (DES). Airflow from vents can further accelerate tear evaporation.

Recommendations for Improving Air Quality

Humidifiers can be used to increase ambient moisture in the office, especially during winter months when heating systems reduce humidity. Avoid sitting directly under air vents or fans, as these can dry out the eyes further [5].

Nutrition and Eye Health

The relationship between nutrition and ocular health is well-established. Nutrients such as omega-3 fatty acids, lutein, zeaxanthin, vitamin C, vitamin E, and zinc are critical for maintaining the structural integrity of the retina and preventing oxidative damage [6].

Recommendations for a Vision-Healthy Diet

Omega-3 fatty acids, found in fish like salmon and flaxseeds, are essential for maintaining the lipid layer of the tear film, reducing dry eye symptoms. Antioxidant-rich foods, including leafy greens (kale, spinach) and brightly colored vegetables (carrots, bell peppers), are high in lutein and zeaxanthin, which help protect against age-related macular degeneration [7]. Vitamins A, C, and E, found in foods like sweet potatoes, citrus fruits, and almonds, play a role in maintaining ocular surface health and preventing oxidative stress in retinal cells.

For professionals who may struggle to maintain a balanced diet due to busy schedules, nutritional supplements can provide a practical solution. The Age-Related Eye Disease Study (AREDS) showed that a combination of antioxidants and zinc can reduce the progression of age-related macular degeneration in high-risk individuals.

Physical Activity and Eye Health

Sedentary lifestyles, often inherent to professional work environments, have been linked to increased risks of glaucoma, diabetic retinopathy, and other systemic diseases that affect vision. Regular physical activity improves overall circulation, which is essential for maintaining ocular health, particularly in the retinal and optic nerve tissues.

Recommendations for Incorporating Physical Activity

Encouraging short, frequent breaks to stand, stretch, and walk not only helps prevent musculoskeletal strain but also improves ocular perfusion, reducing the risk of intraocular pressure spikes associated with sedentary behavior. Engaging in moderate exercise (e.g., brisk walking, swimming) at least 30 minutes per day can lower the risk of glaucoma by improving aqueous outflow.

Sleep and Eye Health

Adequate sleep is essential for ocular surface repair and tear production. Chronic sleep deprivation has been associated with conditions such as dry eye syndrome, dark circles, and general eye fatigue. The body's natural repair mechanisms rely on sufficient rest to maintain the health of the conjunctiva and corneal surfaces.

Recommendations for Healthy Sleep Habits

Professionals should aim for 7-9 hours of sleep per night to promote proper tear production and prevent ocular dryness. Reducing screen exposure 1-2 hours before bedtime can improve sleep quality by minimizing blue light exposure, which can disrupt circadian rhythms.

Conclusion

The modern professional lifestyle poses a variety of challenges to eye health, particularly with the increasing reliance on digital screens and sedentary work environments. However, by implementing proactive strategies-ranging from ergonomic adjustments to dietary improvements-working professionals can significantly reduce their risk of developing long-term ocular problems. This article emphasizes the importance of integrating eye-friendly habits into daily routines to maintain healthy vision and mitigate the effects of harmful lifestyle factors.

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