

Eye Strain problems associated with computers

Dr. Saroj Gupta

Rajesh Singh

Many individuals who work at a computer experience eye-related discomfort and/or visual problems. The level of discomfort appears to increase with the amount of computer use. The extent to which an individual may experience symptoms is largely dependent upon his/her visual abilities in relation to the visual demands of the task being performed. These vision problems are not new or unique to computer use. Many individuals in other highly visually demanding occupations will experience similar vision related problems. However, the unique characteristics and high visual demands of computer work make many individuals susceptible to the development of eye and vision-related symptoms. Uncorrected vision conditions, poor computer design and workplace ergonomics and a highly demanding visual task can all contribute to the development of visual symptoms and complaints. Vision problems experienced by computer operators are generally only temporary and will decline after stopping computer work at the end of the day. However, some workers may experience continued impaired or reduced visual abilities, such as blurred distance vision, even after work. If nothing is done to address the cause of the problems, they will continue to recur and perhaps worsen with future computer use. Work that is visually and physically fatiguing may result in lowered productivity, increased error rate and reduced job satisfaction. Therefore, steps should be taken to reduce the potential

for development of stress and related ocular and physical discomfort in the workplace.

Viewing a computer screen is different than viewing a typewritten or printed page. Often the letters on a computer screen are not as precise or sharply defined, the level of contrast of the letters to the background is reduced and the presence of glare and reflections on the screen may make viewing more difficult. Viewing distances and angles used for computer work are also often different from those commonly used for other reading or writing tasks. As a result, the eye focusing and eye movement requirements for computer work can place additional demands on the visual system. Older workers particularly may find adjusting to these working requirements difficult. Eyeglasses or contact lenses prescribed for general use may not be adequate for computer work. Specific occupational lenses prescribed to meet the unique demands of computer work may be needed. Special lens designs, lens powers or lens tints or coatings may help to maximize visual abilities and comfort. Computer workers who receive eye examinations and occupational eyewear have reported improved comfort and resolution of their symptoms.

The quality and efficiency of their work have also been improved. Some computer workers may experience problems with eye focusing or eye coordination that cannot be adequately corrected with eyeglasses or contact lenses. A program of optometric vision therapy

designed to treat specific binocular vision dysfunctions may be needed. A preventive approach to reducing visual stress from computer work incorporates the use of rest or alternate task breaks throughout the workday. Many computer tasks are repetitive and can become stressful both mentally and physically after an extended period of continuous work. Occasional rest or alternate task breaks are helpful to combat fatigue and stress. They provide an opportunity to incorporate different and less visually demanding tasks into the work regimen. Specific rest or task breaks should be based on the individual visual needs of the operator.

Tips for reducing Eye Strain :

1. Take a break - Use the 20-20-20 rule: every 20 minutes, take a 20-second break and look at something 20 feet away.
2. Blink frequently - Do not forget to blink periodically. Staring at computer screens can dry our eyes and cause redness and irritation.
3. Consider computer glasses - Computer glasses are prescription eyewear that are specifically designed for computer work. They allow you to focus your eyes on the distance of a computer screen, which is generally farther away than reading material. Computer glasses optimize your eyesight when you're looking at digital screens and help to reduce glare.
4. Keep your monitor bright - This reduces the flicker rate of the computer and reduces fatigue. Flickering can lead to eyestrain and headaches. Also, a bright monitor causes your pupil to constrict, which results in a greater range of focus. This reduces the need for your eye to accommodate and enables you to work longer and with more comfort.
5. Use proper lighting - Use incandescent lighting and avoid high-intensity lamps, which cast shadows and create glare. Place a dim light on either side of your workstation to create equal brightness without dark, shadowed areas.
6. Check your monitor's position - The position of your computer monitor can add to your eyestrain. It is important that it be positioned at the proper distance away from your eyes. Optimally, your computer screen should be 15 to 20 degrees below eye level (about 4 or 5 inches) as measured from the center of the screen and 20 to 28 inches from the eyes.
7. Adjust your screen resolution - Make sure your monitor has a high-resolution display. A higher resolution produces sharper type and crisper images, reducing eye strain.
8. Minimize glare - Clean your monitor regularly to remove dust and consider installing an anti-glare screen. It also helps to keep shades drawn to prevent glare from outside sources.
9. Try massage or eye cupping - Massaging the area around the eyes will help relax the muscles and can be very comforting. Rub your hands together to create friction and warmth, then gently cup your palms over your closed eyes and rest them.
10. Take your vitamins - Getting the proper amount of vitamins and minerals is important for overall eye health. Opt for vitamins that contain antioxidants and ingredients that help improve the health of the eye and reduce eyestrain, such as vitamins A, C and E with a B complex and Zinc. Lastly, be sure to consult your eye doctor about the workstation setup and the number of hours each day spend on electronic devices.

References

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