

At Issue: computer-related vision problems

Q: *At Issue* posed the following question to a panel of experts: "What computer-related vision problems have you seen in your patients, and do more patients seem to be exhibiting these symptoms? What do you do to help these patients?"

A: **Blurred vision, glare sensitivity, sore eyes**

Noel A. Alpins, MD, FACS: In recent times, workplaces have been revolutionized by the widespread introduction of computers. As such, ophthalmologists are seeing increasing numbers of visual display unit (VDU)

Noel A. Alpins, MD, FACS, can be reached at 7 Chesterville Road, Cheltenham, Victoria, 3192, Australia; (61) 3-9584-6122; fax: (61) 3-9585-0995; e-mail: alpins@newvisionclinics.com.au.



operators reporting visual symptoms they relate to their workplace environment. Blurred vision, glare sensitivity and sore eyes are amongst those commonly reported. In most instances, basic management strategies can be introduced to effectively tackle such issues.

It can be demonstrated that most cases of blurred vision and asthenopia reported by VDU operators result from sub-optimal or inappropriate refractive correction. Accurate refraction, including correction of presbyopia, and provision of appropriate spectacles for the work environment should rectify many problems. When determining the spectacle prescription, it is important to consider the workstation and make allowances for the operators' viewing distance and angle. VDU operators should be encouraged to personalize their workstation by placing their monitors further away than their usual reading distance and at a height below eye

Sensitivity to glare is a commonly reported symptom. Glare problems can arise from inappropriate lighting, poor screen quality or ineffective spectacles. Scatter of light from spectacle

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lenses can be resolved by recommending anti-reflection coatings when patients use them for screen-based tasks. Distortion effects from moderate to high prescription lenses may be relieved by refractive surgery, which is a valuable option to avoid the problems associated with the optical correction of any refractive error.

The observer also requires the ability to adjust for glare resulting from surrounding windows and room lighting. The provision of blinds for windows and appropriate workstation position to eliminate reflected light can help reduce troublesome glare. Commercially available screen filters fitted to the monitor can be used if environment modification has not sufficiently reduced glare.

Sore, burning and gritty eye symptoms are frequently reported amongst VDU operators. Typically, these symptoms result from dry eyes related

to the atmospheric conditions within the workplace and the reduced blink rate inherent with VDU use. It is essential to examine these patients for any other anterior eye condition that would warrant an alternative course of treatment. Climate control systems notoriously result in low atmospheric humidity and this is largely beyond the control of the individual. For this reason, periodic application of non-preserved ocular lubricants is recommended, and most have found this to be an effective strategy for reducing ocular irritation.

Undeniably, computers have become a part of our daily lifestyle and, not surprisingly, increased stress has been placed on the visual system and, consequently, on the worker. As ophthalmologists, we have the opportunity to provide sensible advice that can assist VDU operators to overcome these complaints and function more effectively in the workplace. **OSN**