

# Radiological Safety

## Computer Vision Syndrome (CVS)

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There are many aspects of radiological safety; work safety environment is an important one. One often overlooked area is the eye damage that can occur to radiologists staring onto several computer screens for hours on end. The term that is often used to describe this is Computer Vision Syndrome (CVS).

CVS is like other work-related repetitive motion injuries. At a computer screen, your eyes are constantly focusing and refocusing. There is a large workload on the eye muscles. This is made worse from the contrast and glare of computer screens. What's more, it is known that work at a computer screen is associated with a decreased blink rate; this contributes to dry eye and periodic blurry vision. Symptoms of CVS include eyestrain, headaches, blurry vision, dry eyes, neck, and shoulder pain. Causes of CVS include poor lighting, glare on the screen, improper viewing distance, poor seating posture, and uncorrected vision problems. The possibility that these factors can negatively impact radiologist accuracy and burnout must be considered.

The prevalence of CVS among radiologists varies depending on the study. It was found to be as high as 65.4% in radiologists in Saudi Arabia. In addition, the prevalence and severity tend to be worse in female compared to male radiologists.

Whether you are a young radiologist without any vision problems or a seasoned radiologist with many of the above symptoms, it is important for you to know of treatment and preventative options.

- Try to commit to the 20-20-20 rule: take a 20 second break to view something 20 ft away every 20 minutes.
- Blink frequently and achieve full corneal coverage with each blink. This can be challenging when trying to concentrate on patient care.
- View the center of the screen with eyes looking downward (15-20 degrees). This is both comfortable for eyes and neck.
- Use a screen to eyes distance of 20-28 inches.
- Avoid screen glare from overhead lighting or windows.
- It is important to get regular eye examinations to diagnose (and treat) CVS.
- Lens prescribed specifically for computer viewing are available. This can be very helpful not only for optimal vision of images, but also for optimal comfort and less strain on the eyes. (I have my own pair of prescription "computer glasses.")
- Vision therapy (exercise) is an option for those who have difficulty in focusing despite optimized eyeglasses/contacts.

Computer Vision Syndrome is an underappreciated problem among radiologists. More awareness of this problem (and solutions to the problem) is important to reduce its negative impact on the work environment.

### References

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