

Computer Vision Syndrome (CVS)

If you use a CRT based computer for many hours, some ill effects like **eyestrain** and fatigue may develop which is known as **Computer Vision Syndrome**. This is mainly due to pulsed electromagnetic radiation and artificial light from the monitor. The same thing happens if you watch TV for long time. The CRT monitor uses fast beam of electrons that generates pulsed electromagnetic radiation carrying energy. At close range, this energy disturbs the metabolism and electrical activities of living cells.

Artificial fluorescent light from the monitor is the form of fractioned light which leaves out many segments of the spectral range. Flickering of the screen is also dangerous since the flickering rate is higher than the '**Flicker-Fusion**' rate of the human eye. CVS is also caused due to bad contrast or excessively or poorly illuminated screen. Background illumination, posture, positioning of the monitor, ocular conditions like dry eyes and uncorrected refractive errors etc, increases the risk of CVS. Close watching reduces the muscle movements of the eyes and causes strain and fatigue.

To reduce the effects of CVS, many safety measures are recommended. The first and most important rule is to keep a safe distance of 14 inches from the screen although 24 inches preferred. More than 24 inches distance is necessary from the sides and rear of a nearby monitor. It is important to note that Laptop computers using **Liquid Crystal Display (LCD)** are completely safe since there is no X ray emission from the screen.

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