SLCC Lighting Information

The work we do in our modern society is often very visually demanding. Proper lighting of our work area is a critical element in maintaining a healthy work environment. Proper lighting means the enough light is provided to comfortably view printed, handwritten or displayed documents without glare or excessive light.

The introduction of computers in the 1970's increased the visual demands of our work and made lighting design even more challenging. While typewriters were being exchanged for computers, the need for redesigning or rearranging office lighting was commonly overlooked.

Common complaints

The most common complaints resulting from improper lighting are:

- eyestrain
- eye irritation
- blurred vision
- dry burning eyes
- headaches

Improper lighting very often affects not only the eyes but can also contribute to stiffness and soreness in the neck, shoulders and upper back. There are studies that show that eyestrain can be linked as a risk factor for lower back pain.

Computer monitors

It is important to remember that the computer monitor itself is a source of light and as such does not require additional illumination from other sources. Improper adjustment of the brightness and contrast settings on the monitor can increase the risk of eyestrain and other related problems. Changing the background color to a softer "powder blue" color rather than white can also help reduce the risk of eyestrain.

Screen and paper

Very often our work introduces the additional challenge of using the computer monitor and paper documents at the same time. Paper documents require a higher illumination level than the monitor. A desk lamp, or any type of soft task lighting, can be used to illuminate documents while avoiding excessive light near the monitor.

Monitor settings

The quality of the images on the monitor is another important factor. Reading and interpreting blurred, fuzzy, tiny, or otherwise illegible characters for hours a day can strain the operators' eyes. Don't try to conform to the factory settings that came with your monitor, change them such that the monitor works for you.

Reflections

Reflections of objects, shiny walls, and light sources such as windows and overhead lighting all have the potential to increase the amount of glare. Take steps to minimize the reflection by using things such as window blinds and matte finishes. Eyestrain can be one result of reflections and glare but these things can also force the user into awkward postures as they try to avoid having the glare in their eyes. Awkward postures can contribute to pain and discomfort in the body and increase the risk of serious musculoskeletal injury. The increased stress from holding an awkward posture can also contribute to headaches and other tension related problems.

Overhead lighting

We often have the misconception that overhead lighting must remain on at all times in our area. While this may be true in some cases, it is not true for all. Dimming, or turning off the overhead lights and using task lighting at desk or counter level is often a better solution than simply bathing the area in the often harsh glow of banks of overhead fluorescent lights. Remember, lighting must be adequate but not excessive.

In the eye of the beholder

The question of proper lighting in any situation is linked to our eyes. Taking good care of your eyes is just as critical to maintaining a healthy work environment as proper lighting.

As we age our ability to focus on objects at various distances decreases, a condition known as presbyopia. Commonly, by the time they reach their forties people begin to have trouble seeing objects at close range with the naked eye. This is a gradual change, and has to be regarded as an important component in designing visual environments, particularly when the job involves computer work. Uncorrected vision may be an additional source of eye discomfort. It may have further consequences resulting in aches and pains because of awkward postures or positions adopted to "see well".

- Check your vision every one or two years, as recommended by your eye specialist.
- Provide your eye examiner with information about your job.
- Consider using task-specific computer glasses.

Depending on the amount of time work at a keyboard, the kind of vision correction needed, and your personal preferences, your eye specialist may recommend bifocals, trifocals or even a separate pair of glasses for computer work.

Eye exercises

Focusing your eyes on objects at the same distance and angle for prolonged periods of time can contribute to eye strain. Some habits that will help reduce the risk of eyestrain:

- Every few minutes look away from the screen for a few seconds
- Look around
- Focus your vision on distant objects
- Blink several times
- Using the palms of your hands place gentle pressure on your closed eyes for 15-30 seconds

Proper lighting and taking care of our eyes reduces the risk of the symptoms described above. Very often problems such as dry eyes, headaches, and such are attributed to poor indoor air quality when in reality the symptoms are due to other factors such as improper lighting or eyestrain.