

Eyes and Vision

Types of visual discomfort

Using computers for extended periods can cause visual discomfort, headaches and vision challenges. It is very unlikely that you will suffer permanent changes or damage to your eyes. Rather, you may experience these symptoms whenever you use a computer intensively for periods of a couple of hours or longer; the symptoms will diminish soon after you stop working on the computer. Typical symptoms of vision challenges include:

1. **Eye strain** refers to ocular fatigue, eye discomfort and headaches associated from intensive use of the eyes. Common causes:

- glare on the computer screen
- poor visual correction (out of date eyeglass prescription)
- reading small character sizes on the screen
- poor contrast between text and background on the monitor
- noticeable screen flicker
- dry eyes

2. **Blurred vision** can be caused by normal physiological changes in the eye (i.e. aging or disease). It can also be caused by constant focusing on objects within 12" of the eyes, which often occurs when reading in low light.

3. **Dry and irritated eyes** occur when there is insufficient fluid in the eyes to keep them moist. Eyes are kept moist and refreshed by a normal blink reflex which is present from birth. Blink rates vary with different activities and can become slower when concentrating. Eyes can become red and itchy. Common causes include:

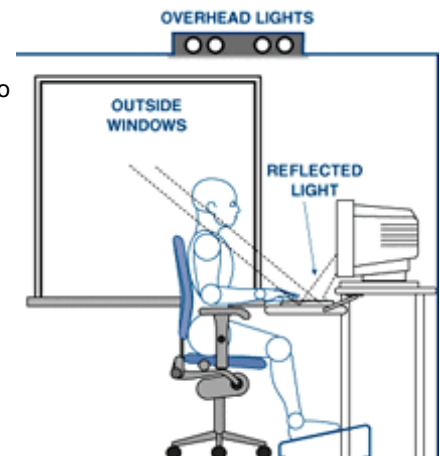
- reduced blinking when using the computer
- air movement that is noticeable in the face area

If you feel your eyes become dry or tired with computer activities, remember to take frequent vision breaks. Breaks can include momentarily closing your eyes or looking away from the screen. If your eyes tend to feel dry or you wear contact lenses, eye drops of an artificial tear substitute may also help prevent or relieve symptoms.

Controlling your lighting



Task lighting is typically provided from desk lamps. Be sure to adjust the position of your task lighting to maximize illumination for visually demanding tasks while minimizing glare on the computer screen. Glare on the computer screen is a common problem. The first step to reducing glare is to control it at the source; close window blinds, turn off hallway lights, and reposition task lighting. The second step is to minimize the effects of glare on your screen; use a monitor glare screen or hood, change your monitor position and tilt, and adjust your brightness/contrast controls.





Accommodating Your Vision

To improve visual comfort while working with computers, try the following:

- Position your monitor at a comfortable distance, usually 18" to 24" away.
- Position your monitor at the proper height, at or just below eye level. If you wear bifocals, position the monitor so that you do not have to tilt your head back to view the screen.
- Clean your monitor screen regularly to reduce eye fatigue.
- Use glasses designed for computer use, especially if you use bifocals to read.
- If you do use bifocals, position the monitor so that you do not tilt your head back to view the screen
- Have your eyes checked regularly (once a year).
- Remember to take visual breaks (close your eyes, look away and vary the focal distance).
- When using a portable computer, be sure to open the screen to a comfortable viewing angle
- If you use a portable computer, remember to alter your position and take frequent breaks.

Minimizing Risks of Visual Discomfort

Reduce the risk of developing visual discomfort by avoiding these common workplace factors:

Common Risk Factors	Common Solutions
<p>Viewing the monitor for prolonged periods of time</p>	<p>Take frequent visual breaks (look at an object 20 feet away for a few seconds).</p> <p>Perform non-computer tasks periodically.</p> <p>Keep your monitor screen clean.</p> <p>Close your eyes periodically.</p> <p>Use artificial tear eye drops if necessary.</p>
<p>Glare on the computer screen from windows</p> 	<p>Use window treatments (blinds, window tinting) to block the light.</p> <p>Position your monitor perpendicular windows or other light sources.</p> <p>Adjust your computer monitor position and tilt to reduce the glare.</p> <p>Use a glare screen or hood.</p>
<p>Glare on the computer screen from inside lighting</p> 	<p>Reduce overhead lighting and add task lighting.</p> <p>Reposition task lighting.</p> <p>Adjust the computer monitor position and tilt to reduce the glare.</p>