Other Ergonomic Influences

Bifocals

If you have to wear bifocals the information on other pages will have to be modified to prevent ergonomic problems. If you set the workstation up for a person without bifocals and then ask a bifocal wearer to sit there they normally tilt their head back to look out of the lens at the bottom of their glasses. This obviously is not the best posture for the neck.

Bifocal wearers tend to find that they can see the screen without any neck pain if they either tilt the monitor more than would normally be seen (but this may produce glare so care has to be taken with positioning of the monitor) or lower the monitor so the neck is more comfortable. Bifocals are prescribed so that someone reading can easily focus on a page. People need to rest the muscles of the eye that is focusing, this is normally achieved by looking at a distant object momentarily. As people approach the age of 40 the eye loses its ability to alter its shape. A young person's eye can relax by looking at an object about 30 inches away, this compares to most people over 40 who need to look at an object about 7 feet away in order to let the focusing muscles relax.

One solution is to eliminate this problem is to use glasses (which may or may not be bifocal) which are designed specifically for computer use. These glasses remove the need to look at distant objects as the glasses are doing the focusing and not the eyes. Old prescription reading or bifocal glasses may work well for computer viewing even though they cannot be used for other close work. If you decide to get new bifocals remember to tell your optician that you need them for computer work and get someone to measure how far from the monitor you sit so that he can base your prescription on this information.

Document Holder

If you do not have documents at the correct position it can lead to eyestrain and/or muscle discomfort.

Having the document flat on a work surface (either to the right or left of the screen) means that you may have to hold your head in an awkward position for periods of time or you will have to repeatedly move your head (up, down and sideways). A document holder can be used to eliminate these movements.

The document holder should be placed as near to the screen as possible so that the documents are at the same height and distance as the screen. If the holder is lower or at a different distance the effects of continual head movement may be less but will still be present and eventually cause problems.

The document holder should be on the same side as the dominant eye. This can be determined by:

1. Make a triangle of both your thumbs and index fingers
2. Focus on a distant object
3. Close the right eye, then the left while looking at the object
4. The eye that keeps the object centered in the middle of the triangle is dominant.

Heat

All related computer equipment emits heat (it may be as much as 400 watts from a single workstation). This may stress Heating, Ventilation and Air Conditioning systems. If you think that your work area is too hot to work comfortably call Facilities (5388) and ask them to check the temperature in your work area.

Static Electricity

Static electricity buildup can cause a variety of problems - data loss, operating difficulties and skin irritation to name a few. If you have ever wondered why your monitor screen is always so dusty - look no further than static electricity. The use of grounded anti-glare screens or keyboard pads can reduce the buildup on a worker. By using a grounded anti-glare screen the amount of dust accumulating on the monitor screen is reduced. Anti-static solutions can also be used to keep the screen free from dust. If static electricity is a major problem anti-static floor mats can be used to reduce problems experienced in low humidity work areas.

Low Humidity

Lack of humidity tends to dry out the secretions on the surface of the eye which may lead to eye irritation. If the task is one that requires a lot of concentration then this is often associated with a reduced blink rate which exacerbates the problem. If you are a contact lens wearer then symptoms may be intensified. Humidity levels should be maintained at a constant relative humity level (which should be between 50-70%). If you are experiencing eye irritation call Facilities (5388) and ask to have the humidity in your work area checked.
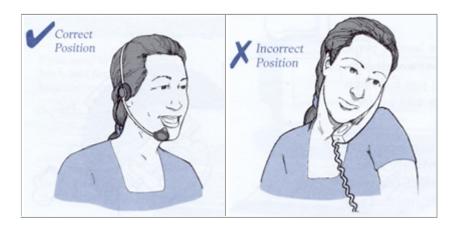
Noise

WCB has in place specific levels at which action must be taken to reduce noise in a work environment. Sound levels in offices are usually well below those permitted by law. Noises can still be heard in an office environment are classes as "nuisance noise". These nuisance noises are often annoying, a source of distraction, fatigue, may interfere with

verbal communications and decrease work efficiency. Most noise in an office environment can be managed by engineered or administrative controls.

Telephone handsets

Frequent use of the phone at the same time as working on the computer or writing can result in neck and shoulder problems. If you cradle the handset between your ear and shoulder for long periods you should explore the need for a headset. Use of the speaker phone button on the super seven phones on campus will also help with prevent of ergonomic problems but you will have to consider the effect of people in surrounding work areas.

Position of the phone on the desk can also be a preventative measure. Place the phone nearest to the hand which you use to pick up the phone.

Monitor Colours

Some colour combinations on your monitor will enable you to see the text easier. A light backgound with dark characters reduce the effect of glare.

Colour Combinations which should be avoided include:

- the eye can't focus on blue so this should be avoided for small letter and numbers
- it is difficult to white on yellow as there is very little contrast
- a vibration effect will be seen if you use yellow on green
- if you use extreme colour contrasts such as red and blue your eyes will tire easily.