It is now commonplace for patients to be registered by someone using a computer upon entering a healthcare facility. Increasingly, computer screens are being installed in every part of the hospital for administrative and clinical purposes.

Many issues arise from this change, but what is commonly missed or disregarded are the risks and implications for the health of the person sitting in front of the computer monitor.

Ergonomics is defined as the application of scientific knowledge to the workplace in an effort to improve the well-being and efficiency of workers. An ergonomic workplace increases workers' efficiency and productivity while reducing fatigue, exertion and musculoskeletal disorders. Many studies have shown that a good ergonomics program also cuts costs by reducing injuries and absenteeism.

Rather than forcing a worker to adapt to a workstation, the workstation should be designed to adapt to an individual's needs. All employees, including data entry clerks, surgeons and medical technologists, can benefit from the process.

An ergonomic computer mounting system is a step in this direction. This type of device – or set of devices – allows a computer monitor and keyboard to be adjusted with precision, whether the employee is sitting or standing.

Attaching a flat-panel screen to a monitor arm allows the user to move the monitor exactly where it is needed. Keyboard arms also adjust to the user's preference, accommodating even intensive data entry.

The adjustment process should include the following five steps:
1. Adjust the monitor height so the top of the screen is at or slightly below eye level. Your eyes should look slightly downward when viewing the middle of the screen.
2. Adjust the monitor distance to about 45 to 60 cm (18 to 24 in.) – or one arm's length – from your eyes.
3. Tilt the monitor back about 10 to 20 degrees, so the top and bottom of the screen are the same distance from your eyes. Make minor adjustments to eliminate glare as needed.
4. Set the keyboard height at that of your elbow – usually about 50 cm (20 in.) below the top of the monitor screen.
5. Tilt the keyboard back about 10 degrees, so it slightly slopes up towards you.

The optimum neutral posture for seated computer operators is a multifaceted arrangement. The head should be positioned directly over the shoulders, not straining forward or backward, and about an arm's length from the screen. The neck should be elongated and relaxed, the shoulders kept down and the chest held open and wide.

The back should be upright or inclined slightly forward from the hips. Be sure to maintain the natural curve of the lower back.

Elbows should be relaxed and positioned at approximately a right angle. Wrist should be in a neutral, relaxed position without flexing up or down. Fingers should be gently curved.

Your chair should be sloped slightly downward to facilitate proper knee positioning. The knees should be slightly lower than the hips. Feet should be firmly planted on the floor or – in the case of some shorter people – a footrest.

The computer screen should be at eye level or slightly lower, as described earlier. The keyboard is best when kept flat or at a slight negative tilt (for proper wrist positioning) and at or just below elbow level.

Working at a computer, even in the best of circumstances, can cause fatigue in the upper body and eyes. Periodic short breaks and changes of posture are highly recommended.

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