Computer Workstations

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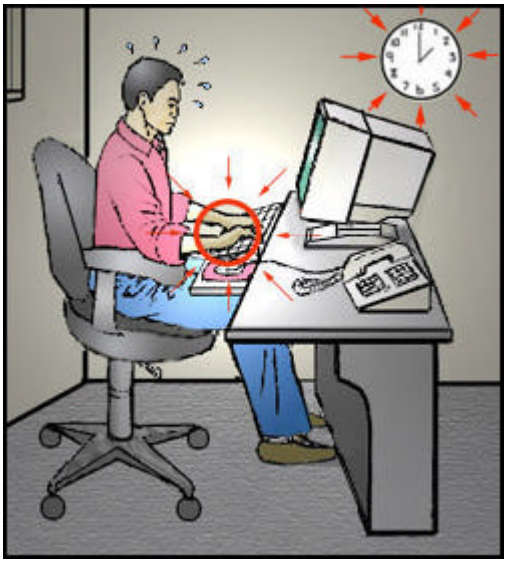
Work Process and Recognition

Even when the design of the workstations is correct and environmental factors are at their best, users can face risks from task organization which can intensify the impact of other risk factors, such as repetition. Additionally, failing to recognize early warning signs could allow small problems to develop into serious injuries. Addressing task organization factors and medical awareness can help minimize the risk of developing musculoskeletal disorders (MSDs) and stop the progression to injury.



- Prolonged Periods of Activity
- Medical Awareness and Training

Prolonged Periods of Activity

Potential Hazard

- Computer work, whether it's for a job or for fun, may appear to be a low effort activity when viewed from a total body perspective, but maintaining postures or performing highly repetitive tasks for extended periods can lead to problems in localized areas of the body. For example, using a mouse for a few minutes should not be a problem for most users, but performing this task for several uninterrupted hours can expose the small muscles and tendons of the hand to hundreds or even thousands of activations (repetitions). There may not be adequate time between activations for rest and recuperation, which can lead to localized fatigue, wear and tear, and injury. Likewise, maintaining static postures, such as viewing the monitor, for a prolonged period of time without taking a break can fatigue the muscles of the neck and shoulder that support the head.

Possible Solutions

- Provide variation in tasks and workstations so there is time to recover from the effects of activity. There are several ways to provide recovery time for overused muscles.

- Utilize an adjustable workstation so users can easily change their working postures. The use of easily adjustable furniture, for example, allows you to frequently change seated postures, which allows different muscle groups to provide support while others rest.

- Ensure that there is enough work space so you can use each hand alternately to perform mouse tasks. This allows the tendons and muscles of the free hand to rest.

- Substitute keystrokes for mousing tasks, such as Ctrl+S to save, Ctrl+P to print. Especially if your job is highly mouse intensive

- High repetition tasks or jobs that require long periods of static posture may require several, short rest breaks (**micro breaks or rest pauses**). During these breaks users should be encouraged to stand, stretch, and move around. This provides rest and allows the muscles enough time to recover.

- Alternate tasks whenever possible, mixing non-computer-related tasks into the workday. This encourages body movement and the use of different muscle groups.

Medical Awareness and Training

TOP

Potential Hazard

- Employees who have not been adequately trained to recognize hazards or understand effective work practices designed to reduce these hazards are at a greater risk of harm. Without proper medical awareness, MSD signs and symptoms may go unnoticed and un-addressed. For example, users who do not understand the risk of bad body postures or techniques do not have the knowledge to actively participate in their own protection. Detection and reporting delays can result in more severe injury.

Possible Solutions

- Computer users should take the time to obtain general ergonomics awareness training on the following issues:

  - Factors related to specific computer components that may increase discomfort or risk of injury,

  - Being aware of discomfort (signs and symptoms), and

  - How to correctly use and adjust components and environmental factors.