



Computer Workstation Analysis

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Treating and managing patients with repetitive motion injuries in an office setting is challenging. The situation is complicated by the fact that many medical conditions contribute to their musculoskeletal complaints. Employee's pain and symptoms often vary day to day, which makes it difficult to effectively manage & treat them. As equally important, most workers adopt computer workstations from a previous worker, without any modification of the workstation to 'fit' their body.

Therapists typically assess range of motion and strength, but should also consider the patients' occupations and work environments, especially since the workplace is often an "easy fix." A workstation evaluation can be an instrumental tool in reducing awkward postures, repetition, and contact stress. A common misconception is when a patient receives medical treatment for tendinitis, lateral epicondylitis, or carpal tunnel syndrome and then returns to work without a change in the computer workstation. It is critical to ensure that the position of the chair, monitor, keyboard, and mouse promote optimum postures while working.

A workstation analysis would have been able to identify that the paralegal returned to a job that required her to perform repetitive stapling of thick reports. The workstation analysis would uncover that the secretary continues to stress her elbow because the mouse is still positioned on top of the desk surface. Possible workstation modifications might include an electric stapler and/or copier be utilized, the job task be rotated to decrease repetition, re-positioning the mouse so the patient's elbows and wrists are in a neutral position.

A thorough workstation evaluation should include a detailed account of the client's daily physical job tasks. Ask questions such as: What percent of the day do you use the computer mouse? What percent of the day do you talk on the phone? What part of your job causes you the greatest fatigue? Is your work primarily copy intensive, screen intensive, or interactive, which dictates the position of the monitor.

The answers to these questions can be very useful in getting an overall picture of the patient's job and identifying the problem areas. Following the interview, objective measurements are taken. This includes, but is not limited to, determining the position of the monitor relative to the eyes, height of the chair and desk, distance from the monitor, angle of the wrist and elbows when typing or utilizing the mouse, etc. Once all of the objective measurements are taken and the workstation has been thoroughly assessed, modifications can be made. If possible, immediate changes should be made to the workstation so that the client can see results.



The client should also be educated on the importance of making positional changes and performing Reversal-of-Posture exercises. These exercises are designed to decrease fatigue, increase blood flow, reduce microtrauma, and improve productivity. The 6 exercises can be done in one minute, and be easily performed hourly throughout the work day.

After the workstation evaluation, a report is generated. This valuable report can assist the physician, case manager, adjuster, and employer in obtaining a better understanding of the workstation and in making decisions related to the job. Most importantly, workers feel better and are more productive.

BASIC ERGONOMIC PRINCIPLES FOR OFFICE VISUAL DISPLAY TERMINAL (VDT) USERS

- Adjust your seat so that when in typing position, your arms hang freely from your shoulders and your forearms are in a horizontal position.
- For many people, to get the correct typing height, their feet may not be firmly on the floor. Therefore, a foot support such as a box, telephone book or footrest can be utilized. It is important for the legs and feet to be supported to eliminate circulation problems or back problems.
- Keep wrists in a neutral position, straight in line with the forearm. The wrists should not bend up or down. Sometimes, a gel wrist rest is beneficial.