

Computer workstation ergonomics training

By Mike Lampl

Before you begin

Observe your work areas and write down your observations. Pay attention to:

- Homemade adaptations to accommodate personal preferences and needs;
- Awkward postures at computer workstations;
- Information on injuries that may relate to ergonomic conditions.



Introduction

This session will cover:

- Defining ergonomics;
- Defining cumulative trauma disorders (CTDs);
- Discussing workplace risk factors that contribute to CTDs;
- Basic positioning tips to improve risk factors at computer workstations;
- Other methods for reducing CTDs.

Start the discussion by asking what is ergonomics? Ask the group each corresponding question and listen to the members' input. Discuss the answers and consider giving the group a copy of the questions and answers.

What is ergonomics?

Ergonomics is applying engineering and scientific principles when designing a work environment that accommodates the employee in relation to the workplace, product, equipment, tools, workspace and organization of the work. The objective of ergonomics is to fit the task to the worker, rather than forcing the person to adapt to the work environment.

Ergonomics is essentially making jobs user friendly. Benefits include: fewer injuries and CTDs; improved productivity; and better performance and quality. Ergonomics is not an overnight proposition. It is a continuous improvement process that minimizes or eliminates workplace risk factors.

What are CTDs?

Cumulative trauma disorders refer to wear and tear on the musculoskeletal system. Common CTDs include carpal tunnel syndrome, tendonitis and lower back disorders. Pain, swelling, inflammation, burning and stiffness are often associated with CTDs, or they may lead to a CTD.

What are workplace risk factors?

Common workplace risk factors include:

- Forceful exertions;
- Repetitive motions;
- Awkward postures;
- Mechanical pressure on soft tissue;
- Inadequate rest.

Just because one or more of these risk factors are present in a job does not necessarily mean a CTD will develop. However, especially with exposure to multiple risk factors, the potential for CTD is higher. Conversely, if you eliminate any or all of these risk factors, the potential for overexertion or injury decreases. Use the basic positioning tips below for computer workstations to minimize or eliminate risk factors.

- Position the monitor and keyboard directly in front of you.
- Place the monitor at your best focus distance to avoid eyestrain and forward leaning. This is typically at least 20 inches away, but it can vary based on specific vision correction.
- Place the mouse next to the keyboard, so you can use it without reaching.
- Place the top of the monitor (e.g. menu bar) at or slightly below eye level.
- Align your head and neck with your torso.
- Relax your shoulders, with your arms hanging at your sides.
- Place your forearms and thighs nearly parallel with the floor.
- Have your wrists in a neutral posture.
- Have your feet flat on the floor, or supported by a foot rest.
- Rest the lumbar curve of your back against the backrest on your chair.
- Make sure there is approximately a hand's thickness between the front edge of the chair and the back of your knees.
- Position any document holders to reduce or eliminate neck twisting or bending.
- When using the phone and computer simultaneously, consider using a headset.
- When using a laptop for extended periods, consider using a docking station and full-sized keyboard.

What else can reduce CTDs?

To reduce CTDs and/or the severity of CTDs, you should:

- Take breaks from the computer and do other tasks such as filing, copying, etc.;
- Understand what is adjustable at your workstation;
- Report work-related pain and discomfort; get a medical evaluation when needed;
- Give suggestions for ergonomic improvements;
- Exercise and maintain a healthy lifestyle;
- Use good ergonomic principles at home as well as work;
- Keep your work area organized.

Group activity

Conclude the training by asking each member to identify one key point he or she can apply from today's discussion. If the discussion leads to making physical changes (e.g., raising or lowering a work height), be sure to document the discussion and follow up appropriately.

References

Computer Workstations eTool (OSHA): <http://www.osha.gov/SLTC/etools/computerworkstations>

HealthyComputing: <http://healthycomputing.com>

Cornell University Ergonomics Web: <http://ergo.human.cornell.edu>

Ergonomics tools and resources (BWC): <http://www.ohiohwc.com/employer/programs/safety/ErgoTools.asp>

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