Office Ergonomics

Working Safely to Improve Comfort and Efficiency

HPMC Occupational Medical Services

Health & Wellness
Ergonomic Support

• As part of the Occupational Medicine Contract, ergonomic support is offered for the following:
  ▫ **Computer Workstation Evaluations**
    • Equipment positioning
    • Proper postures
    • Pain/discomfort evaluation
  ▫ **Field/Site Evaluations**
    • Drum handling
    • Waste retrieval
    • Lab processes
    • Biomechanics- Lifting, moving, reaching, etc.
Ergonomic Support

- Serve as part of your Ergonomics Team
- Assist in site evaluations
- Provide employee education and group safety meetings
- Web-based information and education
  - Provide more tools to reach more people.
What is Ergonomics?

Greek translation: ERGO (work) and NOMOS (natural law/system)

The scientific study of matching a job to a person’s anatomical and physiological characteristics for the purpose of improving efficiency, comfort, and safety.
Ergonomic Risk Factors

- **Repetition**
  - Using the same muscles in the same way repeatedly.
- **Forceful Exertions**
  - When the force required to lift, push, pull or grasp an object is greater than individual capacity.
- **Prolonged Static Postures**
  - Static muscle work combined with high force causes immediate fatigue in the working muscles of the neck, shoulders, and mid-back.
- **Awkward Postures**
  - These postures can lead to muscle strength and function deficiencies.
- **Mechanical Contact Stress**
  - Palm, wrist, forearms, elbows.
- **Temperature**
  - Cold will reduce blood flow.
Repetitive Strain Injuries (RSI’s)

- Chronic inflammation of a soft tissue.
  - Tendon
  - Muscle
  - Ligament
  - Joint cartilage
- Common examples are:
  - Arthritis
  - Tendonitis
  - Bursitis
RSI Signs and Symptoms

- It is important to acknowledge signs and symptoms ASAP to prevent serious injury or permanent damage:
  - Numbness or a burning sensation in the hand.
  - Reduced grip strength in the hand.
  - Swelling or stiffness in the joints.
  - Pain in wrists, forearms, elbows, neck, or back.
  - Reduced range of motion.
  - Muscle cramping.
Ergonomic Controls

- **Engineering Controls**
  - Modify the workstation, tool, or process.

- **Administrative Controls**
  - Job rotation, work/rest cycles. Often used when engineering controls are not an option.

- **Work Practice Controls**
  - Training to maximize efficiency, use neutral and effective postures and best work practices.
Setting up the Computer Workstation

• Your workstation should:
  • Be fairly adjustable. Depending on special needs it may require more customization (big or small chair, mouse options, keyboard options).
  • Promote proper postures.
Your Workstation

- **Chair**
  - Adjust the seat of your chair. Thighs should be horizontal to the floor. Feet should rest firmly on the floor or footrest.
  - Shoulders should be relaxed and the elbows at a 90-100 degree angle.
  - Backrest should support the curves of your spine.
  - There should be 2-3 finger widths between the back of your knees and the front of the chair.

- **Keyboard/Mouse**
  - Position the keyboard directly in front of you with the mouse next to it at the same level.
  - Keep the wrist relaxed and straight.
  - Use wrist/palm support for micro-breaks – don’t rest on it while keying.
  - Move the mouse with the whole arm rather than just the wrist.
  - Trackballs are good for eliminating repetitive wrist movements.
Your Workstation

• Monitor
  ▫ Position the monitor directly in front of you.
  ▫ Adjust screen height so the top is slightly below eye level.
    • NOTE: If you wear multi-focal corrective lenses, position the monitor at a height that allows you to maintain a straight neck when clearly viewing the screen. This may mean lowering the monitor as low as possible.

• Visit our website at www.hanford.gov/health for tips on preventing eye strain.
Ergonomic Accessories

• Document Holder
  ▪ Position directly next to the monitor.

• Footrest
  ▪ Use to support your feet and low back.

• Palm/Wrist Support
  ▪ Avoid resting your hands on the support while actively using the keyboard or mouse.

• Telephone
  ▪ Use a headset if you frequently use the phone.
  ▪ Never cradle it in your shoulder.
Prevention Strategies

• Limit repetitive and static patterns.
  ▫ Break up job tasks to avoid repetition.
  ▫ If you must perform a repetitive task for a length of time, take short breaks.
    • Allows muscles to recover from repetitive motion.

• Frequent short movement breaks.
  ▫ Get up from your chair at least once every hour.
  ▫ Our bodies are not made to remain in one position for a length of time - Get up and move around.
Fatigue-Relieving Exercises

• Stretch and move regularly to promote circulation and reduce muscle fatigue.
• Visit www.hanford.gov/health for stretches and exercises that can be done at work.
• Contact your company ergonomics lead in Safety or Industrial Hygiene:
  ▫ Engineering and layout of workstation.
  ▫ Biomechanics of working positions and tasks.
  ▫ If you are experiencing discomfort or for a check up of your workstation.