

Office Ergonomics

*Working Safely to Improve
Comfort and Efficiency*

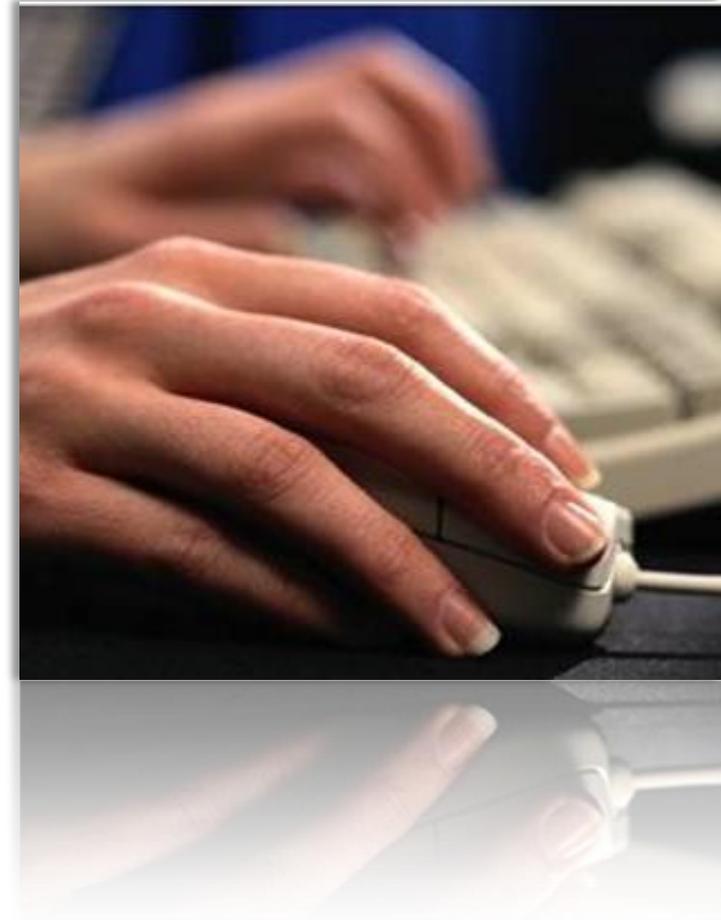
HPMC Occupational Medical Services
Health & Wellness

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

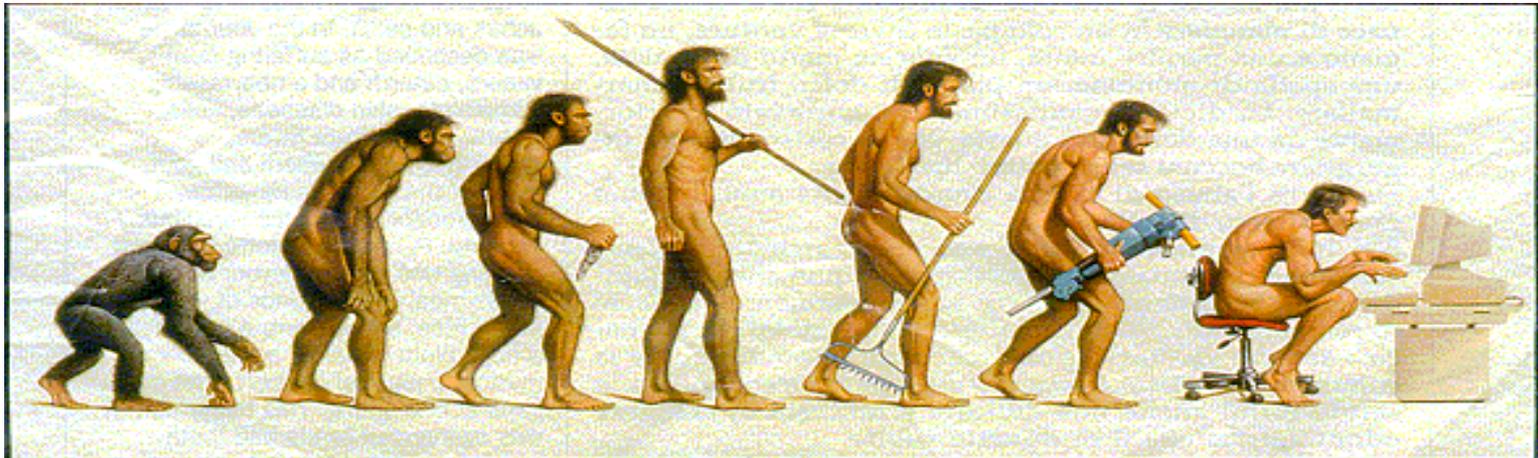
- Serve as part of your Ergonomics Team
- Assist in site evaluations
- Provide employee education and group safety meetings
- Web-based information and education
 - Provide more tools to reach more people.



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.

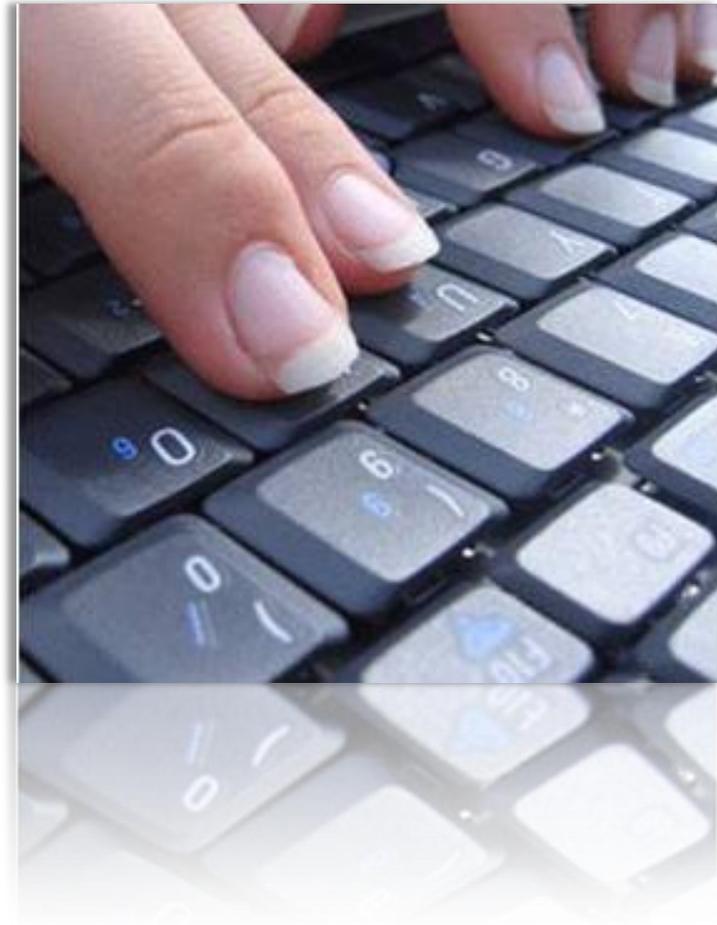


Ergonomic Risk Factors

- 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.

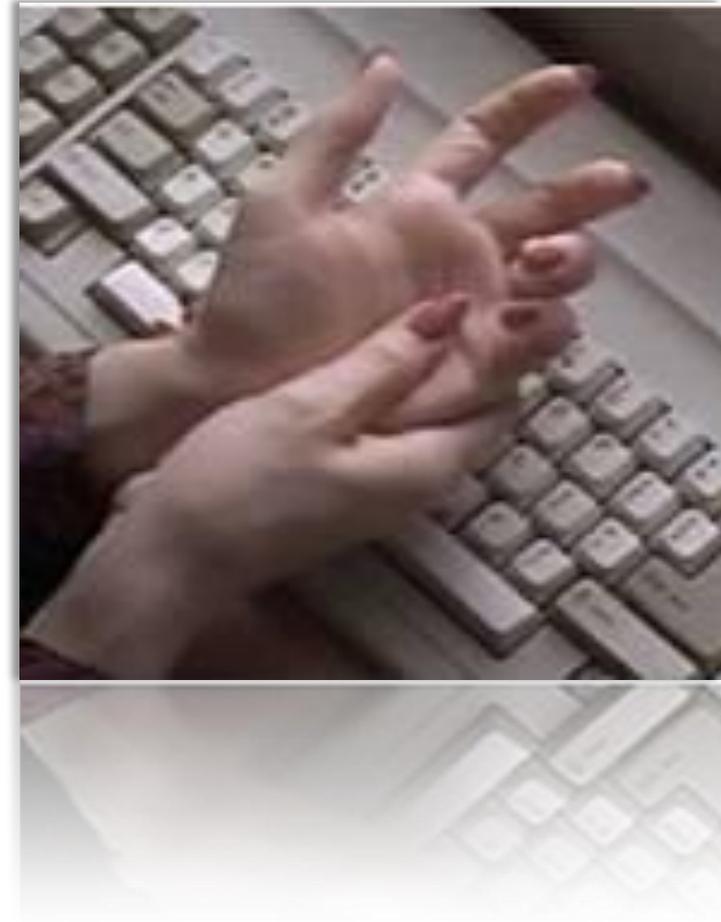
Repetitive Strain Injuries (RSI's)

- 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 you 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.