

Ergonomics





Ergonomics

What is ergonomics?

Design and behavioral factors intended to maximize productivity and eliminate or diminish operator fatigue, discomfort, and injury



Ergonomic Policies & Procedures

Program highlights:

- **Complies with California OSHA and Joint Commission**
- **Designed to eliminate risk factors**
- **Consists of ergonomic assessments and training**

Employee responsibilities:

- **Follow safe work practices and avoid hazards per training**
- **Report problems at the time of onset**

Supervisor responsibilities:

- **Monitor work area for hazards**
- **Ensure that employees comply with safe and healthy work practices**



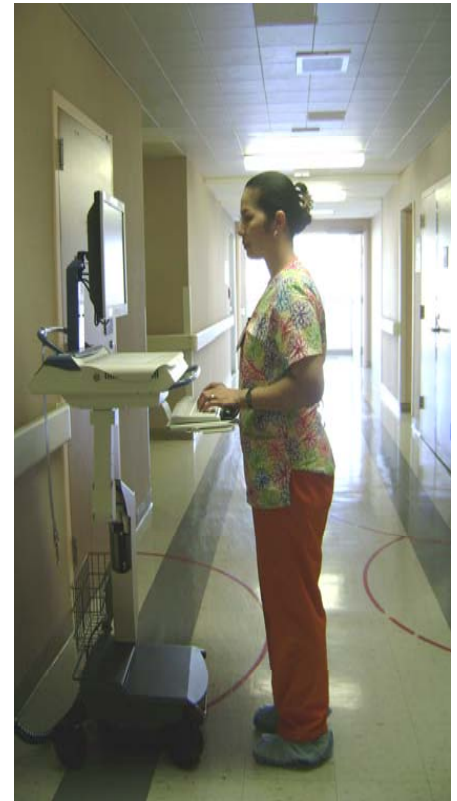
Musculoskeletal Disorders (MSD's)

What's the harm?

- **Musculoskeletal disorders (MSD's) are a group of disorders that can affect the body's muscles, joints, tendons, ligaments and nerves**
- **Health problems can range from discomfort, minor aches and pains, to more serious medical conditions**
- **Signs and symptoms to be aware of include but are not limited to: painful joints, tingling or numbness, shooting or stabbing pains, swelling or inflammation, pain in wrists, shoulders, forearms, back, legs or neck**

The Goal-Good Posture

- **Head aligned with body**
- **Shoulders relaxed**
- **Head, torso, and legs are facing in one direction**
- **Knees slightly bent, not locked**
- **Wrist aligned with the forearm**
- **Arms positioned by the sides of the body**
- **Feet staggered or side by side**
- **Spine aligned with slight hollow in the low back**





Risk Factors

Risk factors that increase your risk of MSD's:

- **Static posture**
- **Awkward posture**
- **Repetition**
- **Excessive force**
- **Contact stress**

Longer Duration + More Risk Factors

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Higher Potential for Injury

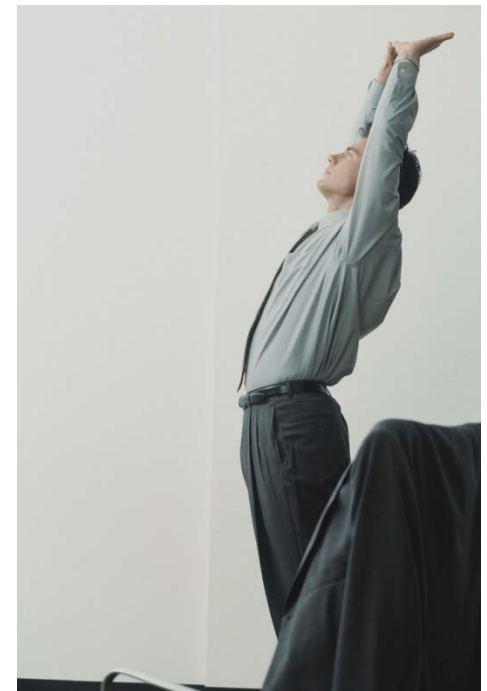


Risk Factor-Static Postures

Holding a body position beyond the point of fatigue.

Let's to it right:

- **Stand up and stretch!**
- **Install Stretch Break Pro by calling 323 783-4357 or ext. 3-HELP**



Risk Factor-Awkward Posture

A body position that imposes physical stress on the body

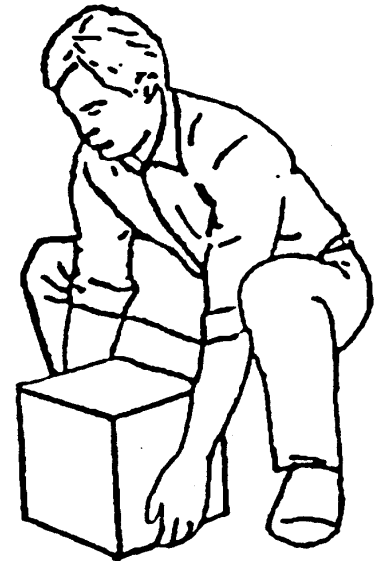
Some common examples:

- **Bending at the waist when lifting**
- **Cradling the telephone between shoulder & ear**
- **Pulling equipment**



The Goal-Proper Lifting Techniques

- **Test the load, if load is too heavy reduce size or ask for help**
- **Plan the move by clearing obstacles and obtain appropriate equipment**
- **Maintain proper body alignment**
- **Keep load directly in front and close to the body**
- **Bend at the knees and hip**
- **Grasp object with both hands**
- **Lift using your legs, not your back**
- **Use smooth movements, avoid jerking**
- **Pivot whole body when turning, never twisting**



The Goal-Proper Pushing

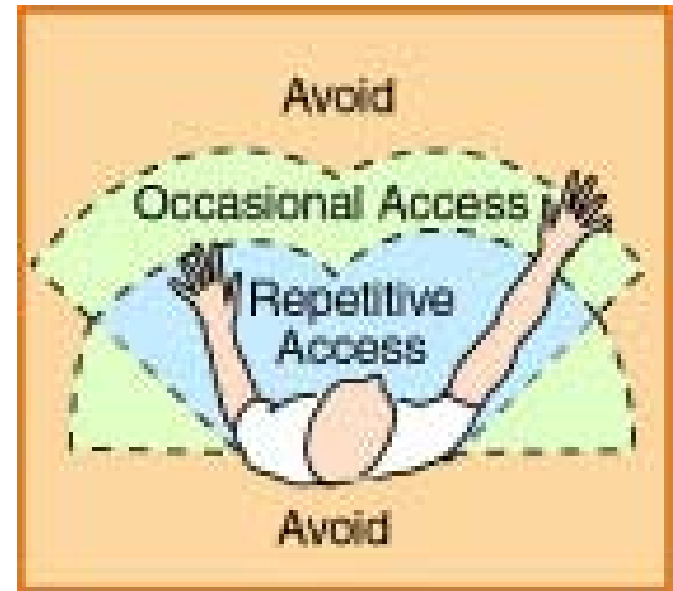
Moving Equipment (carts, beds...)

- **Maintain proper body alignment**
- **Shoulders in resting position, not elevated**
- **Stay close to object**
- **Use both arms with elbows slightly flexed**
- **Keep wrists straight**
- **Pull stomach in to support back**
- **Keep head upright**



The Goal-Proper Workstation Set-Up

- Arrange work surface to minimize twisting or excessive reaching
- Stand if reaching above shoulder height when seated
- Use stepping stool if reaching above shoulder height when standing
- When seated pivot chair in direction of work
- Position frequently used items in close proximity
- Keep area under work surface clear for legs

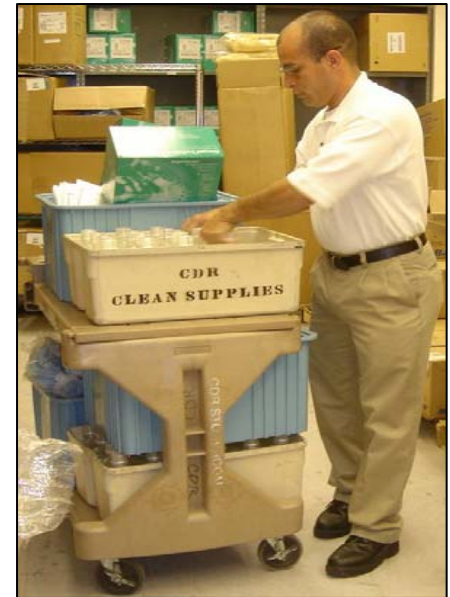


Risk Factor-Repetition

Repeated performance of tasks within a time period that does not allow for full physical recovery.

Common examples:

- Typing
- Filing
- Pipetting



The Goal-Limit Repetition

- **Mix it up! Incorporate activities such as typing with filing, sorting, or telephone work**
- **Use short cut keys or “hot keys” that reduce same finger key strokes and mouse clicks**
- **Use mechanical devices such as electric, staplers, pipettes and pumps**
- **Use administrative controls by rotating staff**

Risk Factor-Excessive Force

Using more energy or exertion than is necessary to accomplish a task

Some common examples:

- Manually moving patients
- Holding a mouse too tight
- Manually moving heavy items or lifting heavy items that are too high or low



The Goal-Avoid/Limit Excessive Force

- Use motorized equipment rather manual
- Utilize Lift Technicians
- Store heavy items at waist level
- Use a gentle hold on mouse and pencil and let go the mouse when not in use



Risk Factor-Contact Stress

Stress on the body due to repeated or forceful contact with hard or sharp surfaces

Common examples:

- **Resting wrists or forearms on desk edge or keyboard tray**
- **When seat pan digs into back of legs**
- **Leaning on elbows/arm rests**
- **Hitting legs/knees on objects under desk**



ERGONOMIC TIPS

- Adjust workstation and equipment at beginning of shift.
- Change positions frequently, stand up and stretch, and vary your tasks.

① Keep head upright; ears, shoulders and hips in a straight line

② Shoulders relaxed; elbows by sides of body

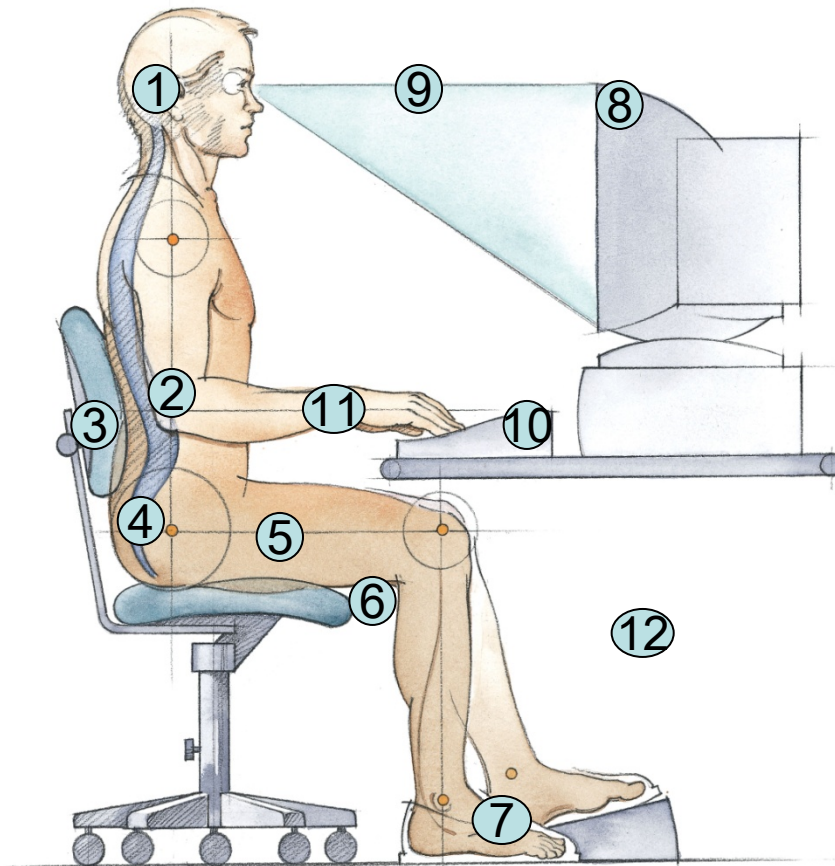
③ Adjust backrest to support curve in lower back

④ Sit upright with buttocks against back of chair

⑤ Thighs parallel to floor or hips slightly above knees

⑥ 1"-4" between front edge of seat and back of knees

⑦ Feet flat on floor or footrest.



⑧ Top of monitor at or slightly below eye level (lower for bifocals)

⑨ Monitor distance at arm's length

⑩ Monitor, keyboard and mouse inline; keyboard flat on surface; mouse beside keyboard.

Adjust desk or keyboard tray so forearms parallel to floor.

⑪ Hands aligned with wrists. Type with wrists floating above keyboard or wrist rest. Type with light touch.

⑫ Area under work surface clear for legs. Sit close to your work.

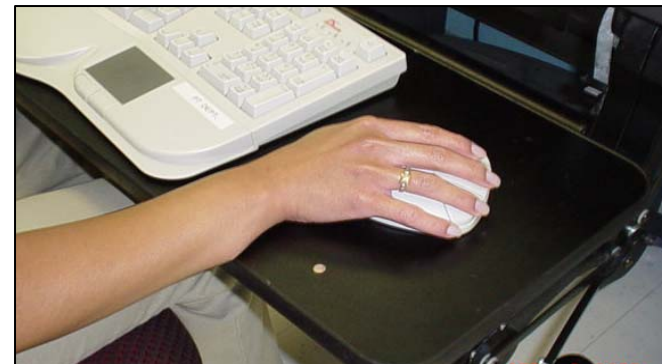
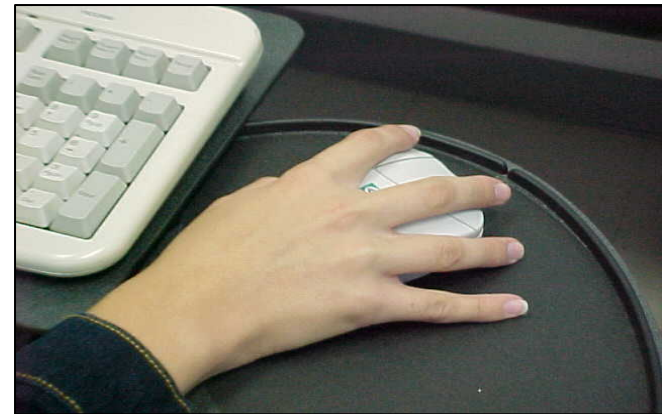
Common Errors With Keyboard Use

- Resting the wrist while typing
- Ulnar deviation (turning hands to the outside)
- Tense fingers
- Excessive force
- Typing multi-key commands with one hand



Common Errors With Mouse Use

- **Extending arm to reach mouse**
- **Resting wrist**
- **Ulnar deviation (turning hand out)**
- **Spreading fingers over the mouse**
- **Striking the “click” harder than needed**
- **Squeezing the mouse**
- **Excessive use of the scroll wheel**
- **Lifting mouse off work surface**
- **Holding mouse when not actually using it**





What Can You Do For Yourself?

Avoid ergonomic risks factors

- **Awkward positions, excessive repetition, contact stress, force, static fatigue**

Take action!

- **Adjust work areas per training**
- **Practice good ergonomics**
- **Keep supervisor informed by promptly reporting problems**
- **Take stretch breaks**



Questions/Concerns?

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Safety Resources:

- **Workplace Safety Website – kpnet.kp.org/wps/scal**
- **Ergonomics Website – insidekp.kp.org/ergoinfo**
- **WPS Training Videos – <http://kpnet.kp.org:81/wps/national/training>**
- **Call 3-4FIX to report repairs or spills**
- **Call 3-SAFE to report any safety concerns**