Ergonomics
What is ergonomics?

Design and behavioral factors intended to maximize productivity and eliminate or diminish operator fatigue, discomfort, and injury.
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 that increase your risk of MSD’s:

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

Longer Duration + More Risk Factors = Higher Potential for Injury
Risk Factor-Static Postures

Holding a body position beyond the point of fatigue.

Let’s do 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
• Call 3-4FIX to report repairs or spills
• Call 3-SAFE to report any safety concerns