

SmartWork Solutions

I. Ergonomics: An Industrial Therapist's Perspective

II. Why do we address Ergonomics

- A. To prevent/reduce pain problems**
- B. Safety**
- C. Costs**

III. Why isn't it fixing the problem

- A. No one size fits all formula**
- B. Rob Paul/ Pay Peter**

IV. Objective:

- A. A new perspective on Ergonomics from the MS view**
- B. Identify common MSD's and how ergonomics can reduce the risk**
- C. Identify key players and their role**

V. The musculo-skeletal system

- A. Each person is unique ectomorph-mesomorph, short-tall; things like 90/90/90 rule don't apply to everyone**
- B. Reducing the risk for one worker, may increase the risk for the next worker (ie, lower the work area for me to reduce my shoulder pain, increases the bend for the co-worker causing back pain); Must assess your goals and any unintended consequences of "the fix"**
- C. Often the workers are your best resource, but educate them first to correctly identify risks and solutions**
- D. Not usually the big changes that help as much as the 5-10% changes (20k adjustable deck, never used, but moving a supply shelf down 5 inches works)**

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VI. MSD Injury Risk factors

- A. Work Demands**
- B. Work Design**
- C. Work Technique**
- D. Posture Habits**
- E. Worker Fitness Aging Workforce**
- F. Sustained Posture**
- G. Repetive Motion**
- H. Worker Health**
- I. Easier to reduce Posture stress than repetitive motion**

Musculo-skeletal System	Risks	Ergonomic Identifiers	Risk reduction
Neck/Arm	Forward head Unsupported Arm work Elevated arm work Poor posture	How high How far How often How prolonged How loaded	-Reduce identifiers by 5-10% where able -Padded arm support where able -Posture education -Microstretches -corner desk set up
Wrist	Wrist out of neutral (bent positions) Grip Pinch	How forceful How often How prolonged How wide	-Reduce identifiers by 5-10% where able -Use ergonomic tools/equipment to keep wrist straight -Good fitting nonslip gloves -Microstretches
Low Back	Forward bending Twisting Awkward lifting Tight hamstrings Poor body mechanics Poor posture	Lifting: How heavy How far How high/low How often How awkward	-Reduce identifiers by 5-10% where able -Educate on the “why” of body mechanics -Good seating -Posture education -Nose over toes -Microstretches

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VII. Strategies

- A. Ergonomics**
- B. Work Variety**
- C. Microstretches**
- D. Education**

VIII. Work Design (decrease by 5%, 10%)

- A. Posture**
- B. Loading**
- C. Movement**
- D. Environment**

IX. When work design cannot be fixed

- A. Work Task Variety**
- B. Job Rotation**
- C. Sit-stand option**
- D. Arm support**
- E. Microstretching program/Posture Education**

X. Your Ergo Plan

- A. Supervisors, Safety/Risk Managers, CEO, Worker**
- B. Each has a role in the process, each must be educated to the role they play**
- C. Develop a Policy/Procedure**
- D. Identify MSD risks**
- E. Identify the small changes/solutions**

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- F. Assess the benefits, cost, unintended consequences**
- G. Implement, Follow up/Feedback, reassess**
- H. Ongoing process, Team effort**

Remember, ergonomics is only a piece of the “pain pie,” there are many other factors impacting risks for pain problems. You can start here, but don’t stop here. (worker health, worker attitude, worker age, supervisor attitude, co-worker relations, HCP, stress, work practice, overtime, piecework, return to work process)

Biographical Info:

Robin Poston, OTR/L, CEAS is an Industrial Occupational Therapist and owner of SmartWork Solutions, Inc. She has over 21 years of experience in treating work related injuries. As a Certified Ergonomic Assessment Specialist and therapist, Robin has been helping clients identify risks for work pain problems and develop programs to decrease those risks as well as empower workers to reduce their own risks and prevent work pain problems .