Ergonomics

Ergonomics and the Aging Workforce

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Workforce Demographics Are Changing

Are you ready?
people turn 65 every day. This will continue every single day until 2030.

AARP
79% of Baby Boomers say they don’t plan on fully retiring at 65.

AARP
56 is the average age of a highly skilled manufacturing worker.

Bureau of Labor Statistics
17% of the labor force will be over 65 years old by 2025.

Bureau of Labor Statistics
The aging workforce presents a challenge to industry:

To design a safe and productive work environment that accounts for the characteristics that come with aging.
Characteristics of Aging Workers

**PHYSICAL**
- Decreased strength, flexibility, and balance
- Decreased vision
- Decreased reaction time and speed
- Decreased hearing
- Decreased manual dexterity and feedback
- Decreased body fat
Characteristics of Aging Workers

- **PHYSICAL**
  - DECREASED OXYGEN INTAKE
  - RISING SYSTEMIC BLOOD PRESSURE
  - FASTER ONSET OF FATIGUE
  - GREATER SUSCEPTIBILITY TO EXTREME TEMPERATURES

- **PHYSIOLOGICAL**
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- **PSYCHOSOCIAL**
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**ERGONOMICS PLUS**
Characteristics of Aging Workers

PHYSICAL

PHYSIOLOGICAL

PSYCHOSOCIAL

DIFFERENT SHIFT PREFERENCES

DIFFERENT TRAINING AND LEARNING STYLES

CAN TEND TO EXPERIENCE DISENFRANCHISEMENT WITH THEIR WORK AND COWORKERS
The characteristics of aging workers often puts them at a higher risk of injuries.

The solution?

Improve workplace design with Ergonomics.
Workplace Ergonomics

Ergonomics = Fitting the Job to the Worker

Accommodate aging workers by fitting jobs and tasks to the workers’ capabilities and limitations.
Workplace Ergonomics

1. Prioritize Jobs for Evaluation
2. Conduct Objective Ergonomic Evaluations
3. Develop Ergonomic Opportunity List
4. Determine Best Solution w/ Team Approach
5. Obtain Final Approval & Implement Solution
6. Evaluate Improvement for Effectiveness

Ergonomics Improvement Process

Ergonomics should be treated as a process that systematically identifies and reduces risk.
Engineering Controls.

Engineering solutions are the preferred method of controlling ergonomic risk factors. Engineering controls seek to enhance the physical aspects of the workplace such as workstations, tools, and equipment design or redesign. The focus is to design the job to fit the person, rather than forcing the person to fit the job.
Administrative Controls.

Administrative solutions should be considered when cost or practicalities of engineering controls are prohibitive. Administrative controls consider adjustments in company procedures to minimize exposure to risk factors. Examples of administrative controls include job rotation, job enlargement, modified rest breaks, providing additional employees to perform high risk tasks, and work conditioning for new and returning employees.
Work in neutral postures.

Working with the body in a neutral position reduces stress and strain on your musculoskeletal system.
Work in neutral postures.

**Neutral Posture**

**Awkward Postures**

- Shoulder Flexion
- Shoulder Extension
- Shoulder Abduction
- Shoulder Abduction & Extension
Ergonomic Tips for the Aging Workforce

2. **Allow for movement and stretching.**

Working in the same posture or sitting for prolonged periods of time is bad for you. Your body’s musculoskeletal (or movement) system is designed to move.

Arrange workstations and tasks to allow for posture changes.
2

Allow for movement and stretching.
Ergonomic Tips for the Aging Workforce

3

Work from the power / comfort zone.

The “power” zone or the “comfort” zone is also referred to as the “hand shake” zone – this is an easy way to remember the optimal location to perform work, which is within easy reach and at a proper height.
Work from the power / comfort zone.
Provide adequate lighting.

A common issue with older workers is lighting. Visual acuity deteriorates with age, so make sure work areas are properly lit.

Adjustable task lighting is a common fix for this problem.
Provide adequate lighting.
Ergonomic Tips for the Aging Workforce

5

Use a power grip.

Providing “power grips” instead of pinch grips for jobs and tasks is another ergonomics “low hanging fruit” to help accommodate aging workers.
Ergonomic Tips for the Aging Workforce

Use a power grip.

[Images of pinch grip and power grip]

Image source

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www.ergo-plus.com