



Addressing the Health and Safety of an Aging Workforce

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Like the worker shown in Figure 3-1, many U.S. workers are now 55 years of age or older. According to research published in the *Monthly Labor Review*, the share of the labor force of the 55 and older age group was expected to increase from 14.3 percent (2002) to 19.1 percent (2050), and the percentage of workers 55 to 64 and over 65 would grow by 48 percent and 40 percent, respectively, between 2002 and 2012. (<http://wistechology.com/articles/3807/>)

These older workers bring a wealth of experience and knowledge to the workplace and are a valuable part of the workforce, so it is important to evaluate equipment, facilities, and work processes and make any necessary changes to address the health and safety issues that accompany an aging population.

Department of Labor workplace statistics for 2004 indicated that workers 64 and older had the lowest number of workplace injuries across all age groups. (http://www.ishn.com/Articles/Industry_News/5b84b6f0b91c7010VgnVCM100000f932a8c0) Although they may be less prone to injury than other workers and have fewer work-related accidents, aging does result in physical changes, such as loss of strength and muscular flexibility, more limited range of motion, loss of sense of balance, diminished hearing and vision, and reduced respiratory function. These physical changes in older workers result in limitations that can have an impact on their safety in the workplace.

On-the-job injuries experienced by the older working population often are caused by falls, which can be attributed to poor balance, slowed reaction time, visual deficits, lack of

concentration, or complacency. The Bureau of Labor Statistics (BLS) issued a report in 1996 indicating that fractures made up 11 percent of injuries suffered by workers 55 years and older, compared with about 5 percent for workers under age 55. Moreover, older workers took 35 days to recover from a fracture sustained by falling to the floor or other non-elevated surface, compared with 25 days for younger workers. (<http://www.bls.gov/iif/oshwc/ossm0002.pdf>) To prevent such falls, employers need to identify specific hazards for slipping and tripping and incorporate engineering and administrative controls to reduce hazards (e.g., flooring and matting designed to deter slips, trips, and falls).

Providing adequate lighting is important to the safety of older workers because of changes in their vision. Older workers may have trouble adapting from an illuminated environment to a darker one, may have problems with glare, or may have an increased need for contrast between a target and its background, especially in dim light. It is important to improve illumination

in work areas and to add color contrast. It is also important to reduce glare and to ensure that all signage and labels have lettering that is large enough to be seen clearly by workers of all ages.

Respiratory functioning also declines with age. There is a decline in function from 15 percent to 25 percent from age 20 to age 65. Oxygen uptake sharply declines after the age of 50, making intense physical activity more difficult. Older workers should not be assigned strenuous work in hot and



Figure 3-1. Example of older worker engaged in work task



humid or cold weather and should be encouraged to take frequent breaks. They also should be provided with respirators when necessary.

The older worker's thinking processes tend to be slower than those of younger workers. To address issues with memory deficits, slower decision-making, and difficulty with multi-tasking, experts recommend minimizing distractions in the tasks that older workers perform and making an effort to assign tasks that do not require the recall of information from long-term memory. It is also helpful to ensure that each procedure step is as short and precise as possible and that all procedures are clearly written in active voice to avoid misinterpretation.

The following suggestions can help enhance the safety and health of all workers, including those who comprise the aging workforce.

- Eliminate heavy lifts, elevated work from ladders, and long reaches.
- Design work floors and platforms with smooth and solid decking while still allowing some cushioning.
- Reduce static standing time.
- Remove clutter from control panels and computer screens and use large video displays.
- Reduce noise levels.
- Install chain actuators for valve hand wheels, damper levers, and similar control devices.
- Install skid-resistant material for flooring, especially for stair treads.
- Install shallow-angle stairways in place of ladders when space permits and where daily elevated access is needed to complete a task.

- Increase task rotation, which will reduce the strain of repetitive motion.
- Lower sound system pitches, such as on alarm systems, as they tend to be easier to hear.
- Lengthen time requirements between steps in a task.
- Increase the time allowed for making decisions.
- Consider the reaction time required, especially when assigning older workers to tasks.
- Provide opportunities for practice and time to develop task familiarity.

The text box on page 3, taken from an article distributed by the New Jersey Department of Health & Senior Services, provides additional information about how employers can protect older workers from accidents and injuries. The article, which also includes information about potential health issues that may affect older workers, can be accessed at <http://www.state.nj.us/health/eoh/survweb/olderwkinfo.pdf>. In addition, the State of Texas has developed a fact sheet, "Aging in the Workplace," which lists the physical challenges that face the older worker, as well as safety measures that can be taken to address them. The fact sheet can be accessed at <http://www.tdi.state.tx.us/pubs/videoresource/fsageinwork.pdf>.

Most experts agree that even though older workers face additional obstacles to performing their jobs, they bring experience and knowledge and an excellent work ethic to the workplace, making them a valuable part of the work force. Improving equipment, facilities, and work processes can help offset the limitations of older workers while taking advantage of their experience and capabilities. In addition, implementing improvements to help ensure the safety and health of the older worker enhances the safety of all workers.



PROTECTING OLDER WORKERS FROM ILLNESS AND INJURIES

- Conduct hazard communication training to increase employee awareness of the workplace environment and job risks.
- Perform frequent monitoring to ensure older workers can handle job tasks as well as when they started the job (especially if there have been changes in health status).
- Provide personal protective equipment to reduce risk, such as slip-resistant shoes and respirators, when warranted.
- Install fall protection systems where needed.

As the workforce ages, work planners, managers, and supervisors should consider the physical changes that come with age in job planning and should ensure that measures are in place to address these changes and mitigate any resulting hazards.

KEYWORDS: Aging workforce, limitations, injuries, safety, health

ISM CORE FUNCTIONS: Analyze the Hazards, Develop and Implement Hazard Controls