

Risk Control Bulletin

The Aging Workforce: How Will it Affect Your Business?

RISK CONTROL



America's workforce is changing. Baby boomers, defined as those born between 1946 and 1964 are now reaching the age where retirement is just around the corner and there are 79 million of us. The official retirement age of the first of these boomers is 2011.

What is the impact of aging on worker health and safety? Addressing these means looking at the physical, psycho-social, and cognitive issues related to aging. Business in the U.S. cannot continue to run their businesses as usual!

The number of workers age 45 and older has doubled since 1950. According to the AARP, the number of older persons (55 plus) in the labor force, which stood at about 18.2 million in 2000 is projected to rise to 25.2 million in 2008 and 31.9 million by 2025. The resulting increase is 38% over 10 years and 75% percent over the next 25 years. (Rix, 2001)

A major impact on workers compensation is that aging generates co-morbidities multiple illnesses or injuries that lead to increased recovery time. A 55-year-old worker suffering from back injury caused by cumulative trauma also may suffer from disc degeneration found in almost all men and women over the age of 40. While older workers have low absenteeism, turnover, and accident rates, they do take longer to return to work after injuries and illnesses because they are likely to heal more slowly and have pre-existing health problems. Older workers have more severe injuries with longer rates of off work time than their younger counter parts do.

What is so significant about human aging and our bodies? They do happen and they are natural. We will all have them to some degree:

- Loss of strength
- Loss of muscular flexibility
- Loss of joint range of motion
- Diminished postural steadiness

- Reduced grip strength
- Reduced blood flow and tactile feedback
- Reduced visual capacity
- Slowing of our mental processing

Strength

Loss of strength happens due to decreased muscle mass and diminished force capabilities of our muscles. The muscles take longer to respond to action and fatigue faster as we age. As muscles age, they begin to shrink and lose mass. The number and size of muscle fibers also decrease. It takes muscles longer to respond in our 50's than they did in our 20's. Heavy lifting and lowering, awkward positions and static postures are all risk factors for workplace injuries. Task requiring grip force and exertion, as well as repetitive tasks, are more difficult with decreased strength and endurance.

Reduced grip strength goes along with reduced muscle and soft tissue capabilities. Hand grip strength decreases, making it more difficult to accomplish routine activities such as gripping, lifting, turning a valve, opening material, and pulling task. We can assist the aging worker by reducing the time spent in these type jobs or providing mechanical assists. Choosing hand tools and hand-held devices that are appropriately sized for the human hand to compensate for reduced grip strength. This is critical to be able to identify and evaluate these exposures as CNA wants to increase their writing of manufacturing business and these type exposures are typical in the manufacturing arena.

What can we do to prevent injuries to the soft tissue? Find the jobs that possess the greatest physical risks to the various soft tissue groups through an organized, systematic process that is quantifiable. **(CNA Ergo Process)** The process will prioritize the jobs that need to be changed as well as those that could be used for return-to-work and to keep employees working longer. Some of the ways to help employees include:



- Reduce work with static muscle effort (i.e., sustained, fixed postures)
- Increase use of mechanized equipment
- Keep work in neutral zone (**GET WORK AND MATERIAL OFF THE FLOOR**)
- Reduce or eliminate twisting of the upper torso

Vision

Vision is by far our most important sensory channel. We receive a wider range of information from light than all other senses combined. Approximately 90% of most of the information we learn in a lifetime enters through the eyes. A 60-year-old person requires 2 to 3 times the amount of light as a 20 year old.

Normal age related changes in vision include impaired ability to adapt to changes in light levels, extreme sensitivity to glare, reduced visual acuity (ability to discern detail) and restricted field of vision and depth perception. Impaired depth perception may cause a person to perceive a shadow on the floor as a step or a hole and visual misinterpretation based on visual misinformation can severely impair an individual's ability to function safely.

Light

The single largest missing ingredient in workplace facilities to assist aging workers is light and how it is designed for the job task.

Well-designed lighting plans are essential. Using more indirect lighting, especially with computer use creates a better working environment. Using task specific lighting is also important depending on the job task; this can be accomplished by using table and desk lamps. Use soft, white lights not bright, clear, which create glare.

Pools of light can distort perception of height and depth, causing stumbling or tripping. Uneven brightness patterns can produce shadows and/or create the illusions of steps or edges where light and shadow meet. Provide gradual changes in light levels.

Reducing glare contributes to comfort, and helps minimize falls and maximize attention span. Attention to the special needs of task lighting assists workers in seeing

the task and increasing levels of performance. Very few managers correlate productivity and efficiency to the correct light levels.

High contrast is very effective in enhancing visual function. An edge band of contrasting color on a desk or counter top can help the worker see it more easily. The aging eye is best able to discriminate saturated colors at the warm end of the spectrum and colors with a high degree of brightness, such as yellow, are particularly visible. There is difficulty distinguishing between blue and green and blue and violet hues.

Cognitive Ability

Mental processing and reaction time become slower with age. This slowing of information processing speed actually begins in young adulthood (the late 20's). By the time people are 60 or older they will generally take longer to perform mental tasks. It is now thought by some experts that older adults do not lose mental competence; it simply takes them longer to process the necessary information. In addition to cognitive decline, slowed processing speed has also been linked to decline in motor function. Therefore, older adults may have less dexterity and coordination than when they were younger.

There are training methods that work well for older adults and make them more effective. Older workers' best methods for learning are through direct, hands-on experience. What they learn they want to use right away. It is important for older workers to be involved in planning and training. Relating new learning to past experiences, accommodating for vision and hearing loss, and establishing an acceptable pace for learning new information are all critical elements to retaining new information.

It is important to understand that the changes in cognition do not necessarily happen to everyone. There is a wide variation among individuals. The degree of decline is small and should not interfere with day to day functioning. It may take an older person longer to learn something new, but they can still learn.



There are methods that will prevent the slow-down of cognitive function:

- Exercise – Regular exercise helps maintain blood flow to brain cells.
- Diet and Nutrition – Maintain proper weight, minimize animal fats, eat more fruit and grains, maintain good brain function, and cognitive related functions.
- Emotional Health – Stress, depression, and other psychiatric conditions can have a negative effect on memory.
- Pain – Physical pain interferes with the ability to pay attention to information, which is required for learning.
- Medications – Side effects, interactions or over-dosing with medications may interfere with memory.

Over the next few years, we will see an increase in the older people in the workforce. Surveys indicate that baby boomers want to continue to work either full or part time. To ensure a long and healthy work life, employers and job designers need to address the relationship between the functional capacities of older populations and task performed in workers age 20 and 30. These are incompatible with the abilities of those aged 55 and older.

Assessing these capabilities and limitations of older workers and designing within these parameters will positively affect productivity, efficiency, and safety among all age groups.

Industry must become more aware of this issue and how to evaluate the worksite in their operations. We need to ask ourselves leading questions in regards to:

- What plans do we have in place to address the aging workforce?
- What percentage of the workforce in the plant is considered to be aging?
- How many physical jobs have workers over the age of 50?
- Do we have an ergonomic process that looks at changing job tasks to accommodate an older work force?

Risk Control can provide your operations with business

solutions to accommodate the baby boom generation. Employing ergonomic principles to improve job tasks will make a significant impact on productivity and efficiency as well as reducing the risk factors for the older workers. Worksite changes for cognitive, vision, motor skills, and physical abilities are reasonable options that can make a significant impact on your operations and bottom-line profitability.

Please give CNA Risk Control a call to evaluate discuss having your operations evaluated.

References

Alma Gaither, RN, MS, COHN-S Article Health and Safety in an Aging Workforce,

Rix, S. (2001). Health and Safety Issues in an Aging Workforce. (IB No 49) Washington, D.C.: AARP Public Policy Institute