

The Gray Shift Part 1: An Aging Workforce Creates New Workplace Injury Issues

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Before 1950, most people worldwide died before the age of 50. U.S. life expectancy is now over 77 years, and by 2050 could be in the mid-90s. Eight people will turn 65 every minute by 2025, and the over-65 population will double over the next 50 years. In the U.S., there will be one retired person for every three workers by 2030. During the recent Great Recession, Americans lost \$17.5 trillion of housing and savings assets. Having suffered the greatest losses and with the least time to recover, two-thirds of workers over 50 say they must postpone retirement.

Due to all these factors, the median age of the labor force is anticipated to increase rapidly, with one-third of the U.S. labor force turning 55 by 2015. This may have far-reaching implications on the number and type of work-related injuries experienced. Most companies are not prepared for these changing demographics.

This demographic shift – The Gray Shift – can be a boon for manufacturing employers, but also presents new and very real threats. Many older workers will be working in environments with exposure to hazards, lifting, carrying, and other injury triggers. Work-related injuries to critical older talent is a potentially serious cost issue for employers, especially in the manufacturing sector.

Even though over-50 Americans are healthier than ever, their functional capacity remains compromised. As the body ages, changes occur to human skeletal muscle strength, vision, and cognitive abilities. Managing information, learning new skills, and multi-tasking is gradually more challenging. Loss of range of motion and flexibility may cause difficulties with work that requires precise adjustments or joint movements at extreme angles, or finger dexterity, as occurs on the factory floor. People lose approximately 20 to 30 percent of their strength between the ages of 20 and 60, so lifting or carrying become an issue. In general, older employees have less strength than younger workers, forcing older workers to operate closer to their maximum strength level. This in turn makes older workers more prone to musculoskeletal injuries (sprains, strains, joint dislocation, carpal tunnel syndrome, tendonitis, neck problems, and lower back pain). Arthritis, high blood pressure, obesity, and other physical problems are also more likely to occur among elderly individuals, which can exacerbate or amplify physical ailments.

Older workers bring a wealth of benefits to the workplace: An ethic of personal responsibility, a can-do work attitude, and – of course – years of experience to both

solve problems and share knowledge as they mentor their younger peers. For employers, this promises dividends in morale, worker loyalty, and reduced training costs. On the other hand, if employers do not take measures to ensure the continued productivity of the older worker, high rates of debilitating and expensive occupational injuries may result, harming workflow, insurance costs, and the bottom line. In order to maximize the contributions of these workers and also to protect their health, employers need to recognize the physical limitations of the aging workforce and be pro-active in employing new strategies and proven tactics to reduce injury triggers in the workplace. Business leaders need to understand that they risk losing the talent and experience of their older employees if they do not compensate for their kinesic and cognitive deficits.

Many work injuries arise from a complex interaction of events that accumulate over time. These are most likely to present in the older worker, who has been performing the particular triggering action(s) over a longer timeframe. When the accumulated effect of the transient external loads exceeds the internal tolerance of the human tissues, a disabling musculoskeletal disorder occurs, leading to debilitating injuries, requiring time off from work, medical treatment, or even permanent disability. These injuries can lead to H.R. shortfalls, productivity losses, and potential workman's compensation costs. In the U.S., workplace injuries cost an estimated \$170 billion each year, and the U.S. Department of Labor says the loss in workers' compensation claims alone is more than \$60 billion annually.

Most executives are aware of the coming "Gray Shift," but few companies have taken any action to prepare for it. Fewer than one in seven employers have adopted strategies that address this changing demographic. This workforce requires a new vision of ergonomic workplace systems with preventive measures engineered in. Too often, ergonomic worker safety solutions are implemented only after injury-related expenses have ballooned. In contrast, businesses can prevent many such expenses by utilizing strategic workplace modifications which reduce the likelihood of injury in the first place. The safety of older people in the manufacturing workplace should be a primary preventive management concern.

Successfully managing an aging workforce can maximize their contributions to productivity while accommodating for their weaknesses. There is a potential for enormous economic returns from such initiatives. Considerable changes, in both infrastructure and corporate attitude, are needed in order to reduce the physical demands on this portion of the workforce, and to adjust the work environment to fit the capabilities of older workers. Modifications may include further automation and mechanization to reduce musculoskeletal stress, the use of product designs that offer a variety of ergonomic benefits and operational simplifications, and the inputs

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of experts such as Environmental Health and Safety Engineers. Employers need to re-engineer the future workplace to allow the “Gray Shift” to become one of its most productive and cost-effective talent pools.

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Check Part 2, "[Using Ergonomy to Retain Valuable Older Workers](#) [2]."

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