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Safety Catalyst: Boosting Safety With an Aging Work Force

By Robert Pater

Gallup polls project a 73 percent increase of 55-and-older workers by 2020, in part because people are waiting longer to retire. For safety strategists, it's critical to plan for the impacts of an aging work force.

The negative: Older workers can be more skeptical about learning and change and reportedly tend to have more severe and expensive injuries, often soft-tissue in nature.

The positive: More experienced workers generally have fewer numbers of injuries and can be ready and willing to learn practical skills to protect themselves if demonstrated to their satisfaction. Arguably, Baby Boomers know, darn shame, they are no longer 10 feet tall, bulletproof or forever young.

It's beyond this short column to discuss all the impacts of aging bone density, weight gain, skin shifts, habits, stress, sleep, hearing, smell, temp regulation and more. But I suggest you consider five changes that happen as we age that can directly affect workplace safety:

1. Change in Balance. Studies show, for a variety of reasons (inner ear, nerve cell and other changes), physical balance wobbles more with aging. This can result in more slips/trips/falls same-level, stairs, ladders with increased strains/sprains, bodily reaction injuries and fatalities.

Why? Cochlea hairs in the inner ear lose sensitivity; tension accumulates, resulting in lessened ability to recover from initial balance loss; slow-twitch nerve cells become less sensitive; more attention is required to prevent sway, etc.

What you can do: Augment economy-of-motion training. Encourage inner-cue awareness. Improve leg strength. Learn how to transfer force down through the legs. Tune up whole-body alignment. Reduce rigidity-promoting tension. All of these are skills that can be readily, steadily learned at any age.

2. Flexibility reduced. Resulting in more strains/sprains, slips/trips/falls, bodily reaction injuries, driving accidents (e.g., not being able to turn neck to see to side and rear, etc.).

Why? Collagen, making up 85 percent of the dry weight of tendons and ligaments, breaks down with age; we can lose 1 percent of flexibility/year after age 30, especially in the calves, hamstrings, lower back and front of shoulders.

What you can do: Learn eye power methods to increase physical range of motion. With physician's approval, modify diet to boost joint and soft-tissue flexibility (MSM, chondroitin sulfate, glucosamine, omega 3, 6 and 9 oils, etc.). Enhance breath power for increased flexibility. Practice relaxation and range-of-motion activities that "grease" the tendons.

3. Attention, vision and memory impacted. Untrained older workers often are more able to sustain attention on a given task, but not as able to quickly switch focus, and they are not as able to multitask as when younger. Brain chemistry changes can adversely affect memory.

What you see is part of what you can react to; this can create risk for older workers when both near vision diminishes while need for illumination increases.

These changes can contribute to increased slips/trips/falls, struck-by/struck-against injuries, driving accidents and strains/sprains.

What you can do: Promote memory-training activities (which has shown a 26 percent improvement in memory, according to the National Institute of Aging). Encourage visual methods to better direct attention and improve peripheral vision. Cardiovascular conditioning has shown to promote faster attentional switching, as well as reducing memory loss. Consider a diet rich in nutrients shown to promote memory and attention (certain berries and supplements). Practice attention-control skills for ergonomically matching desired attention pattern (wide-narrow-inner-focused-outer-focused) to changing tasks.

4. Usable strength diminishes. Sarcopenia (age-related muscle loss) can account for a reduction of 3 percent to 5 percent of muscle mass per year after the age of 30. And cumulative trauma can further weaken the body. This can lead to increased strains and sprains.

What you can do: We are not doomed to be enfeebled as we age. A University of North Carolina study showed that exercise can reverse muscle loss, as well as increase the volume used of oxygen taken in. Perhaps as significantly, workers can learn simple methods for boosting their leverage and physical control (weight shifting, enlisting stronger muscles groups, controlling distance from an object to be moved, etc.).

5. Reaction time slows. While overall muscle mass is eroded with aging, you lose an even higher percentage of quick-twitch muscles, potentially resulting in slower reactions to critical situations. Now, combine this with a lessened ability to switch attention noted above and an older work population may experience more slips/trips/falls, motor vehicle and other driving accidents, struck by/against, caught between and bodily reaction injuries.

What you can do: Practice and teach forward-thinking and mental-rehearsal activities (think fire drills) to preprogram safe reactions. Promote stress-control and relaxation to boost reaction time (think of a tensed cat who has to relax down before running or fighting). Demonstrate most efficient use of movement for fastest and strongest reactions.

Aging can significantly affect work force safety. But by thinking strategically, you can plan to transfer skills and methods that will help yourself and others become safer, stronger and more in control, even as we age.

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