

## The Aging Workforce Mentally

By Cynthia Roth

Now let's address the slowing of mental process. "Memory" is not a single entity or ability. Memory is a process that consists of a number of components, each controlled by various neurological systems. For the purposes of this article, the term "memory" is used broadly to apply to all aspects of our ability to learn, retain, and recall information. In addition to memory, this information can also be applied to other thinking skills, such as attention and reasoning.

Maintaining physical health is essential for optimal memory functioning. Cognition refers to mental processes used for perceiving, remembering, and thinking. Most studies show that, in general, cognitive abilities are the greatest when people are in their 30s and 40s. Cognitive abilities stay about the same until the late 50s or early 60s, at which point they begin to decline, but to only a small degree. The effects of cognitive changes are usually not noticed until the 70s and beyond. These statements are based on data from studies where averages were calculated for each age group. Within each age group, however, there are wide variations in cognitive ability. One study of intelligence over a lifetime found that by the age of 81, only 30-40% of study participants had a significant decline in mental ability. Two-thirds of people at this age had only a small amount of decline. And only certain cognitive abilities decline, while others may improve. Very few workplaces have employees working full time at the age of 81. This dispels most employers' fears of diminished cognitive ability of the older worker.

Mental processing and reaction time become slower with age. This slowing of information processing speed actually begins in young adulthood (the late 20s), although imperceptibly at first. By the time people are past 60 or older (depending on the individual), they will generally take longer to perform mental tasks than younger people. On tests of intelligence that require the person to perform tasks within a short time frame, older adults often do worse than younger counterparts. In the past, this was considered to be a measure of decreased cognitive functioning. However, on intelligence tests with liberal time limits, older adults are often able to perform just as well as younger people. Therefore, it's now thought by some experts that older adults don't 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 a decline in motor function. Older adults may have less dexterity and coordination than when they were younger. They may walk slower and take a longer time to react.

It's important to emphasize that the changes in cognition described here do not necessarily happen to everyone. There is wide variation among individuals. Additionally, for those who do experience declines in cognitive functioning, they are usually not disabling. The degree of decline is small and should not interfere with normal day-to-day

functioning. And there are many ways to compensate for the deficits or even to regain lost function. It may take longer for an older person to learn something new, but it's still possible to learn it.

Memory difficulties can be minimized by using calendars, lists, and other memory aids. Here are some additional solutions to prevent or slow the diminished cognitive function for older employees.

- Exercise - Regular physical exercises helps maintain blood flow to brain cells, bringing with it the oxygen and nutrients necessary for healthy memory. Exercise also increases brain drive neurotrophin factor (BDNF) which slows the rate of normal brain cell death and increases the production of brain cells.
- Diet and nutrition - The same dietary habits that lead to other physical health problems, such as heart disease, also contribute to cognitive problems. As with most healthy diets, minimizing animal fats and eating more fruits and vegetables, and whole grains are generally preferable. And drink plenty (approximately 8 glasses a day) of water or other healthy fluids. Maintaining such habits over time is the key to maintaining good brain function, memory and other cognitive related functions.
- Blood pressure & cholesterol - Keeping blood pressure and cholesterol levels in healthy ranges reduces the risk of memory problems. This can usually be accomplished through diet, exercise, and medications (when needed). Consult your doctor.
- Pain: Physical pain interferes with the ability to pay attention to information, which is required for learning. Seek appropriate treatment or other strategies for reducing or managing pain.

Emotional Health: Stress, depression, and other psychiatric conditions can all have a negative impact on memory. Information overload decreases the efficiency with which we process and remember information. Stress also produces a hormone called cortisol which destroys brain cells in key memory centers in the brain. Minimize both external stress and internally-driven stress. Put time aside for relaxation and leisure activities. Seek professional counseling when needed, and take prescription medications when prescribed.

Sleep Deprivation: Pain, stress and other emotional or physical health problems can disrupt sleep. Sleep problems and fatigue can impair attention and memory. Establish sleep-promoting habits, such as avoiding naps during the day, limiting fluid intake in the evening, reducing activity in the hour or so before going to bed, going to bed at the same time every night, and not eating or watching T.V. in bed.

Medications: Side effects, interactions, overdosing with medications may interfere with memory. Make sure your doctors are aware of all of the medications you are taking, how much you take, and what your reactions are. In contrast to the potential adverse effects of medications, there are now drugs available to treat memory loss. In addition, medications that treat emotional and physical conditions that underlie memory loss may result in dramatic improvements in memory. All options should be considered and discussed with your doctors as part of your overall brain wellness program.

Alcohol and Other Substances. Excessive alcohol intake, tobacco use, and recreational drug use can all interfere with memory and should be avoided.

Environmental & Lifestyle Influences. Some work or living environments may have toxins that, in high enough amounts, contribute to memory loss and should be avoided. Recreational or work-related activities that have a high risk of head trauma, such as soccer or boxing, should be avoided. When the brain is injured, it responds by forming the same amyloid plaques that are found in Alzheimer's disease. Safety devices to reduce the risk of head injury in all aspects of life should be utilized, including wearing seat belts and helmets.

And there are more solutions to reducing the slowing of mental processes. Research supports the "use it or lose it" philosophy of cognition. Mental stimulation increases cognitive reserve and helps to maximize cognitive fitness. People who engage in more mentally stimulating activities tend to maintain higher levels of cognitive functioning longer than those who don't, and there is a significantly lower risk of Alzheimer's disease associated with higher levels of mental activity. Such activity seems to facilitate the development of new neurons and new connections between neurons.

Exercises should range in level of complexity and, although hopefully challenging, should be enjoyable. Such exercises should be new and different, rather than consisting of card games or other activities that one has done on a regular basis for years. It seems that it is the challenge to the brain to expand in new ways that is most beneficial. Even people with stimulating jobs or daily lives may benefit from exercising those areas of the brain that may not be relied upon as much in their typical daily activities.

Like physical exercise, memory exercise may not always be easy and the results may not always be immediately evident, but the potential benefits are worth the effort. The earlier you start the better, but it's never too late. Encourage your employees to read, do crossword puzzles, and educate them as to what is available.

Older employees make great mentors for the newer employees. They have history, experience and job knowledge. Many companies have found older

employees also have a great work ethic, and are reliable. Remember, we will all be older one day as we are all part of the “aging employee” cycle.