

## **Martial arts in the workplace: Can your employees "fight" their way to safety? Employers are beginning to use martial arts as a way to teach safety and reduce accidents and injuries in the workplace - Workers' Comp**

William Atkinson

When you think of the martial arts, you probably think of Bruce Lee if you're over 40 and Jackie Chan if you're under 40. What images do the martial arts raise? Usually ones of high-flying kicks, lightning-quick punches, and artful dodging, accompanied by well-timed yells.

Believe or not, this just might be a good way to teach safety and reduce accidents and injuries in the workplace.

The first thing to understand about martial arts is that, in its purest form, it is about "inner" awareness: mental discipline, concentration, physical balance, coordination, leverage and flexibility. In fact, the most successful fighters who specialize in the external fighting arts (karate, tae kwon do, etc.) begin their training by learning these inner skills before they learn the more visually impressive ones. And it is these inner skills that many employers are beginning to find hold so much potential for reducing accidents and injuries in the workplace.

Gail Choate, president of synergies! In Ft. Lauderdale, Fla., has been studying the martial arts for 10 years and is a second-degree black belt in tae kwon do. She uses these skills to teach self-defense classes. More commonly, however, she uses her skills and knowledge as an instructor in tai chi, chi gung, and yoga to help employees reduce accidents and injuries by improving their balance, concentration and flexibility. (Chi gung, also known as chi kung and qigong, is a Chinese discipline that builds energy and circulates the internal energy known as "chi." Tai chi is a fusion of martial arts and chi kung.)

Recently, Choate taught a chi kung class to officers in a sheriff's department to help them improve balance and flexibility, as well as to reduce stress. "Some of them found so much value in the training that they asked me to return once a week to continue the program," she states.

Another instructor who emphasizes the benefits of martial arts in reducing workplace injuries is B.K. Frantzis, founder of Energy Arts in Fairfax, Calif., an organization that provides training in many Chinese martial arts. He sees benefits both for white-collar workers as well as blue-collar workers.

### The Benefits

For white-collar workers, most injuries in this area are repetitive in nature, especially in the arms, wrists, and hands. "The best way to prevent these types of injuries is to maintain flexibility in the tendons, joints, and muscles," states Frantzis. These include the shoulders, upper arms, elbows, forearms, wrists, hands, and fingers. "If these stiffen, repetitive motion injuries can result," he continues. "Tai chi and chi gung contain specific subtle mechanics that help maintain flexibility in the tendons and joints."

Another common problem in the white collar area relates to posture. "Most people have poor postures when they work," explains Frantzis. "For example, when sitting at desks, they hunch their shoulders forward and upwards toward the neck." This can lead to at least three problems. One is spinal problems that need attention from chiropractors. Second is a gradual decrease of blood to the brain, as the upper back and shoulder muscles continue to tighten and restrict the blood flow over the months and years. "Over time, this condition can lead to diminished mental faculties, which can lead to lowered productivity, as well as accidents resulting from reduced concentration," cautions Frantzis. Third, and an even more serious problem, the reduced blood flow can make people more prone to heart attacks and strokes.

Blue-collar workers can suffer from a number of injuries that tai chi and chi gung can reduce or even prevent. Workers can get injured when lifting or twisting because of problems with physical coordination and flexibility. "For example, if your balance is not good, you can over-stretch," states Frantzis. Tai chi and chi gung teach techniques to transfer energy and weight throughout the body. For

example, when lifting, the techniques teach how to shift energy and weight from the arms to the legs.

Workers can also suffer injuries from overwork, causing the body to "fatigue out." Tai chi and chi gung teach muscle relaxation techniques to prevent fatigue and strain.

"Many blue-collar workers also suffer from joint problems," continues Frantzis. "Tai chi and chi gung promote joint rotation, allowing joints to remain loose and flexible." The techniques also teach participants how to slightly shift weights in certain areas of the body, preventing specific joints from wearing out.

Tai chi and chi gung can also reduce onetime traumatic accidents because they teach relaxed concentration. "This is important for people working certain jobs for long periods of time, such as assembly line equipment," he notes. With relaxed minds, workers can maintain concentration. If concentration is lost, injury can result.

Finally, tai chi and chi gung can help improve hand sensitivity, which can be helpful in preventing accidents. For example, a worker may be able to feel a subtle change in a machine's vibration that might indicate an impending failure. "If someone is lifting a box, he may be able to feel a slight shift in weight that could cause it to topple," adds Frantzis.

### Training Programs

One of the most active training organizations in the area of martial arts in the workplace is Portland, Oregon-based Strategic Safety Associates (SSA), which hires only instructors who are advanced martial artists themselves.

"Even our graphic artist is a martial arts instructor," states Robert Pater, managing director, who has personally been involved in the martial arts since 1983 and is an advanced-level black belt in a number of martial arts.

SSA offers a number of programs under the "MoveSmart" umbrella designed to improve mental and physical skills that have proven to reduce accidents and injuries in the workplace.

On the "mental" side, the emphasis is on attention skills. "Attention control is critical to safe performance," emphasizes Pater. "Yet, most people who have faulty attention habits are not aware of the problem." Example: On the one hand, an employee working on a machine may be distracted by nearby noise and injure himself as a result. On the other hand, that same employee might be talking to someone and fail to be alerted to the noise of an approaching forklift.

"We help employees identify attention patterns," states Pater. "Then, we teach different attention skills to help change ineffective patterns." Workers learn how to control and direct their own attention behavior.

On the physical side, SSA trainers offer a number of MoveSmart modules. One focuses on reducing strains and sprains. Another focuses on reducing slips, trips, and falls. A third focuses on hand safety. "We teach skills that help employees improve reaction time, improve the use of strength and leverage, and improve their balance," states Pater.

Rather than teach complex martial arts techniques, the instructors teach simple, easily learned techniques that aim to help workers prevent accidents and injuries. One example is training in feeling transfer forces. "What happens if you're carrying something and start to fall?" queries Pater. "How do you regain your balance, without hurting yourself?"

To make sure the techniques take hold, instructors emphasize how the mental and physical skills can be used by employees at home, not just at work. "As a result, they are more likely to learn and practice the skills," he explains.

### Employer Experience

One company sold on the value of MoveSmart is Rock-Tenn in Norcross, Ga., a paperboard and packaging manufacturer with about 8,500 employees in 80 locations in North America. "In the early 1990s, we realized that our injury performance levels were unacceptable," states Gregory King, director of risk management. "We launched a relentless safety improvement process, which

involved mechanical improvements, procedural improvements, and other initiatives." The company made it clear that safety was everyone's responsibility, and it began communicating with customers and even competitors to gain new insights into effective safety initiatives. "We share information ourselves with others," he adds. "We believe there should never be a barrier between companies when it comes to sharing information on safety."

One useful experience came when one of Rock-Tenn's salespeople was visiting a customer's facility in Kingsport, Tenn. The customer, Quebecor, had been using SSA's MoveSmart program with great success. Rock-Tenn spent some time at the customer's facility seeing the program in action, then met with Pater to discuss opportunities for the program.

"In 1995, we implemented the MoveSmart module focusing on strains and sprains in 10 of our facilities with high incidences of these problems," he continues. "Afterward, we expanded it to 15 more facilities."

In 1997, Rock-Tenn implemented MoveSmart's slip, trip-and-fall module in 20 facilities, and in 1999 it implemented HandSmart, which focuses on hand safety.

The results? In the early 1990s, the company's injury rate was 12.0 per 100,000 manhours worked. By the time MoveSmart was introduced in 1995, the rate was already down to 5.9 due to previous initiatives. By late 2001, the rate was 2.24. "We can't say that MoveSmart is the total reason for our success, but it is a key part," states King. For example, some Rock-Tenn facilities have been operating injury-free without MoveSmart, because other successful initiatives had already been introduced. "On the other hand, we've seen a number of facilities with high injury rates begin to use MoveSmart and cut their rates significantly," he continues.

King sees two important keys to success in getting employee buy-in to the MoveSmart programs. First, it uses the "train the trainer" concept, and 90 percent of Rock-Tenn's trainers are production people, with the remaining 10 percent coming from management and other salaried ranks. "The peer training component has given the programs a lot of credibility," he states. In addition, the company gives the workers time off during their shifts to conduct the training and help coworkers gain continuity in using the techniques.

Second, employees learned early on that the focus was not on "high-flying karate kicks," but rather on practical skills that they could use every day at home and at work. "They now realize the value of martial arts training in maximizing force, impact, strength, and balance, while at the same time minimizing the negative impact on the body," states King. "Employees feel a positive difference immediately, then apply it to their jobs."

King believes that most of the "low hanging fruit has been picked." The next phase will involve reducing accidents and injuries related to lifestyle issues, such as employees failing to exercise and eat well, or engaging in hobbies or other activities at home that can lead to off-the-job injuries. "We plan to use MoveSmart to help address these problems, too," he concludes.

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