



By Dr Vince Portera, D.C.

Everyday organizations deal with worker injuries such as back sprains or strains, disk injuries, neck and shoulder injuries, Carpal Tunnel Syndrome, and a host of other musculoskeletal disorders (MSD's). Recent data indicates that upwards of \$60 to \$80 billion are spent each year on such injuries. For example, the average cost of a back surgery is \$40,000. According to the Chubb Corporation it costs \$35,000 to \$75,000 for a carpal tunnel case. In addition, the indirect costs are staggering—estimated at three to five times the direct costs.

Unfortunately, businesses and their workers' comp service providers focus primarily on managing the injury and controlling the costs after the injury occurs. The prevailing thought seems to be "I cannot eliminate injuries, so I will try to control them".

The good news is, there is now a way to prevent tomorrow's claims. The emphasis can shift from "injury management" to "injury prevention" and the benefit to employees' health and their productivity. As a bonus, workers' comp costs typically decline.

Learning by Doing, Not by Watching

Many companies in the past have instituted training that has proven largely unsuccessful. In fact, the New England Journal of Medicine reported that "back programs" do not work.

However, most training programs rely on videos, lectures, handouts, or slide presentations. Although the information covered in these types of media is largely accurate and up-to-date, the long-term success and return-on-investment is questionable. Why? It is difficult to learn a true kinetic activity like lifting a box off a pallet or stocking products on a shelf from a sedentary medium such as a video. Learning a physical activity requires one-on-one instruction and physical practice of that activity.

Learning for Life, Not Just Work

Another issue to consider is the employee's "whole" life (24/7), not just their work life. A typical employee working 40 hours per week, 50 weeks per year, or 2,000 hours per year, spends only about one-quarter of their time at work. The vast majority of time is spent away from work, at home, in recreation, or even on a second job. Whatever is taught must provide the tools and skills that can be applied throughout life, not just on the job.

The objective of a successful training protocol must be to teach people how to prevent physical stress, as well as how to relieve accumulated stress. And it must be information they can apply during all daily activities.

The question remains, how do you disseminate this information to your employees so they "get it" and it changes behavior?

Based on the experience of teaching thousands of employees in various retail, industrial, and corporate environments we have developed a specific, nine-step training methodology that positively affects employee behavior. To better understand this approach, it may be helpful to contrast the term BIONOMICS (TM) with ergonomics.

Ergonomics focuses on how the environment affects the individual

BIONOMICS focuses on the proper management of the human body at work and in life. It incorporates the use of proper and safe body mechanics, correct posture and stretching to facilitate better blood and nutrient flow into muscles, with improved waste product flow out of muscles. This allows muscles to remain flexible, strong and efficient.

An effective program delivered by a health care professional follows these key steps:

1. Pre-assessment. The first step necessary is observing employees at work, interviewing them, and learning how they do their jobs.
 2. Design and Customization. Based on the pre-assessment, a training workshop can be designed and customized for each job description. A cookie cutter approach such as a video that applies to all jobs is simply not workable. You are not going to get employee buy in when the material that they study seems irrelevant to their job.
 3. Introduction. In reality, most employees are antagonistic toward safety training, thinking that they already know everything or that the company just wants to take care of itself. Ultimately, you want your employees to take personal responsibility for their own wellness and safety off the job as well as on. Using the WIFFM principle (What's In It For Me) is highly successful in breaking down these barriers to learning. This is achieved by utilizing specially trained health care experts as instructors and delivering to small groups—typically not larger than 15 employees.
 4. Theory. Employees need to learn principles that can then be applied to real life situations.
 5. Stretching. Stretching exercises both prepare the body for work and relieve accumulated physical stress.
 6. Obstacle Course. Employees practice under trained supervision, rotating through multiple stations where they practice specific job tasks germane to their own job tasks. Employees learn not only how to correctly perform tasks, but they also observe their coworkers performance.
- For office workers, the obstacle course might use mock computer stations where they learn sitting principles and the "whys and hows" to set up a workstation. In effect, they can then go out and set up any workstation in the world and adapt it specifically for their body.
7. Questions and Answers. Employees should be given ample opportunity to ask questions and clarify issues
 8. Quality Control. Participants should always be encouraged to fill out course critiques, evaluating both instructors and content.
 9. Commitment. Like any good training or educational program, employees should be asked to communicate what they have learned and to commit to using the techniques immediately in their lives.

The Right Methodology Produces Results

Companies who use BIONOMIC training methodology experience profound results. A major airline recently noted a nearly \$3 million savings over a 10 month period after BIONOMIC training for nearly 5,000 baggage handling employees in several U.S. cities.

In every company, there are challenges to getting employees to work safely, efficiently, and with confidence. The truth is most employees do not want to get hurt. It is devastating to them and their families, as well as their employers. They simply have not been taught how to use their bodies correctly so that they can minimize the daily innocent stresses and preserve their quality of life not only today and this weekend, but for years to come.

Employees, unions and employers all win when injuries are prevented. Using this training system is very workable in forwarding the goal of an injury free workplace.

This article may be reprinted in its entirety provided that the following resource is left intact:

About Future Industrial Technologies

FIT offers workplace safety and ergonomics training programs. BACKSAFE® teaches employees how to perform their specific job tasks in a manner that is biomechanically correct. SITTINGSAFE® teaches office employees how to adapt their existing workstations so they are ergonomically correct. These injury prevention programs make your workplace safer and are proven to reduce injuries and worker compensation insurance costs.