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## **Employee Maintenance An Effective Safety & Wellness Strategy**

Workplace injuries are a burden to businesses and employees in all sectors. Economic and human impacts affect companies as well as employees and their families. On the economic side, for example, \$55.3 billion was paid out in workers' compensation claims in 2005, according to NSC. This figure represents only direct costs, which include medical and lost-time expenditures, costs that insurance covers. Also significant are the indirect or soft costs associated with overtime, decreased productivity, worker replacement, investigations, lower morale, increased absenteeism, administration and claims management. According to Liberty Mutual Insurance Co. in 2001, for every dollar spent on injury-related direct costs, \$3 to \$5 are spent on indirect costs. These costs are absorbed by the company, typically on the site or local level. The impact on the injured worker can be equally painful. The inability to work brings with it economic hardship, strain on the family, psychosocial implications and, on occasion, the fear-avoidance behavior that can negatively impact return to work. Fear-avoidance is the concept whereby the injured employee, unable to work for a period of time, develops a fear, rational or irrational, of returning to work after injury.

### **What Can Be Done?**

To begin, let's look at what has been done. Many companies establish safety departments, safety teams and implement safety engineering. The focus of these efforts is geared toward prevention and often consists of education, awareness, ergonomics, PPE and engineering. While it is certainly true that safety programs and safety engineering pay dividends, it is reasonable to suggest that no company has developed an impenetrable immunity to workplace injuries. Historically, the response to workplace injuries has been largely reactive in nature. These reactions include in-house incident investigations, environmental and ergonomic fixes, and opening of workers' compensation claims. Additionally, reactive injury rehabilitation in the healthcare system often fails workers and companies by not returning injured employees to work with the ability to tolerate their job's physical stresses without reinjury. As it relates to safety,

prevention and workplace risk reduction, it is employees' knowledge and awareness that has traditionally been targeted.

What has often been overlooked is the concept of biophysics. Biophysics relates to the physical attributes employees must possess to safely perform the physical tasks of their jobs without incurring injury. Biophysical characteristics include muscle strength and flexibility, joint range of motion and endurance. Simply put, the stronger and more flexible the employee, the greater the level of physical stresses that employee will tolerate without experiencing an injury. Companies spend tremendous resources to maintain their equipment, tools and facilities. Preventive maintenance of these items helps ensure that productivity is maximized and that interruptions in business are kept to a minimum. What about employees? Should they not be maintained as well? Would maintaining employees not yield similar benefits to those achieved by maintaining equipment, tools and facilities?

### **Employee Maintenance**

An emerging focus of safety in recent years has been on just that—employee maintenance. Employee maintenance is the mechanism by which employees' biophysical traits are addressed to identify risk, to improve musculoskeletal health and to address an often overlooked area of injury prevention potential. With strength and flexibility testing, employees' deficits and limitations in these areas can be identified as part of a risk identification strategy. Once identified, these risk areas can be addressed with joint-specific strengthening and conditioning exercises, as well as targeted flexibility routines. Pain is another area in which employee maintenance has a preventive impact. No employee is immune to occasional aches and pains, work related or otherwise. While they are a part of life, the injuries into which they can develop, if left unchecked, should not be considered a normal cost of doing business.

Employee maintenance's function as it relates to pain is to ensure that employees' symptoms of discomfort do not develop into more significant problems such as injuries and costly claims. An effective employee maintenance program ultimately creates a mechanism and provides the convenience by which employees find it easy to be proactive about their musculoskeletal health, and their aches and pains. In making the case for employee maintenance as part of a safety program, consider that the types of injuries this program is specifically meant to address have an impact on companies' bottom lines. According to NSC, the number of workers' compensation claims in 2006 relating to "sprains, strains and overexertion" injuries far exceeded those relating to "macrotraumas." In fact, such injuries accounted for more than 1.4 million claims while the top three macrotrauma injuries, contusions, fractures and cuts/lacerations, each accounted for between 250,000 and 350,000 claims. Per the same source, the 2006 direct costs for sprains, strains and overexertion injuries exceeded \$25 billion while the total cost was estimated to be between \$75 and \$125 billion. It is these types of injuries in particular that an employee maintenance program has the greatest ability to impact.

When considering that the U.S. workforce is aging, the argument for employee maintenance becomes even more compelling. The first of the baby boomers reached age 63 in 2009. As more

members of this generation approach retirement, they will comprise a greater percentage of the workforce. This will present an ever-increasing challenge to managing workplace safety, mitigating risk and preventing workplace injuries. A key to getting ahead of the curve is increasing the focus of safety and prevention programs on employee biophysics. Employee maintenance programs must ultimately become part of the forward thinking that will tackle biophysics to ensure that aging employees maintain standards of fitness for duty.

Practically speaking, for an employee maintenance program to be successful it must be appealing to and accepted by all employees. Several elements contribute to such a program's utilization. Among them are: on-site convenience, skilled staff who serve as effective coaches for the industrial athlete, low or no cost to employees, and tools, equipment and technology that effectively reduce pain and increase musculoskeletal health. In short, an employee maintenance program must ultimately be a more attractive option than traditional healthcare. In today's world, with ever-increasing insurance deductibles, premiums and copays, the attractiveness of the healthcare system has diminished as a mechanism for workers to obtain the care they need. The result is that employers may end up with the bill for on-the-job injuries that started as nonwork-related conditions. The question that companies must examine is, where do we spend the dollars? Do we reactively spend them on higher premiums for employee medical benefits and workers' compensation claims, or do we proactively spend them on prevention in the form of employee maintenance? In this author's experience, funds are far better spent on prevention programs that address employees' biophysics.

### **Return to Work**

As effective as an employee maintenance program is in addressing aches and pains, it cannot prevent 100% of injuries. However, when set up correctly, such a program serves a secondary function: it will address the specific needs of the injured worker returning to the job. On-site convenience is critical for an employee maintenance program to effectively double as part of a return-to-work program. For the injured worker to maximize and maintain the benefit of a healthcare-based rehabilitation program, an on-site facility becomes the mechanism by which joint-specific conditioning is continued, beyond the point where the rehabilitation program ends. Such a facility provides a seamless transition between where healthcare-based services end and return to work begins. Additionally, because employee maintenance facility staff possess a detailed understanding of the injured worker's job, they can provide job-specific strengthening and conditioning exercises. The result is a decreased likelihood of the reinjury. Furthermore, for the injured worker who does not require time away from work but who still needs a rehabilitation solution, an on-site facility allows the employee to access rehabilitation services while at work. Far less time away from the job is needed to attend doctor and physical therapy appointments, work continues and productivity is maintained. Savings are also realized by keeping an employee's injury rehabilitation in-house versus having it occur in the outside healthcare arena. Finally, it is widely accepted that the longer the injured worker is away from the workplace, the greater the psychosocial impact and the greater role fear-avoidance plays in delaying if not

precluding the return to work.

That said, is there an inherent value to an injured worker having the rehabilitation visits occur at the jobsite? Does showing up to the jobsite for rehabilitation visits foster and maintain a sense of routine as it relates to the job being a part of the injured worker's identity? Does going to the jobsite for rehabilitation visits have a psychological impact on the injured worker's confidence that s/he will ultimately return to work?

These questions are difficult to answer with measurability. However, given the potential costs associated with returning to work being delayed or not occurring, these are questions that must be considered. When used effectively an employee maintenance facility is an integral element of the return-to-work solution for the injured employee. More importantly, employee maintenance as a prevention mechanism cannot be overlooked. Benefits of such a program include reduced workplace risk, fewer workplace injuries, decreased absenteeism, increased productivity and improved employee morale. The product of these benefits is a solid return on investment, more robust bottom lines and increased competitiveness for businesses.

*Benjamin Harris is a licensed physical therapist who operates outpatient orthopedic rehabilitation centers in Washington and is the Employee Maintenance Centers' director for InjuryFree, which specializes in on-site injury prevention, ergonomics and ergonomic management software solutions. For more information, visit [www.injuryfree.com](http://www.injuryfree.com). Harris will be a presenter at ASSE's Safety 2010 conference in Baltimore.*

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