

## Look for Causes of Office-Related Back Pain

Lower back pain is consistently the most frequently reported occupational illness year after year, not to mention one of the most costly workers' comp claims.

Injuries that result from repetitive lifting, twisting or bending are most common. At some point during the lifting task, the protective trunk, abdominal and paraspinal muscles fail to protect the spinal ligaments. Compression, lateral stress and shear forces can occur and the spinal ligaments can stretch or tear, allowing the intervertebral discs to suffer damaging compression.

Lower back pain can often be present without measurable mechanical damage to the spine. Muscular strains and sprains can occur, which result in debilitating spasms and pain.

The contributions that sedentary work and prolonged seated postures have on spinal injuries are less understood. Sedentary workers presumably are less active throughout the day than industrial employees and may be more likely to suffer an injury if they suddenly twist, reach down or lift something. Injury cases have been documented where a worker suffered a back injury by simply leaning forward in an office chair to retrieve an item from the floor.

Because the prevalence of this musculoskeletal disorder, there has been much speculation about the relationship between work and lower back pain. Even with the advancement of industrial automation and improved clinical assessments, reportable lower back injuries continue to plague the American workforce.

Basic tips for preventing back pain include:

1. **Stretch frequently.** Stand up and walk around to feed the spine and promote circulation.
2. **Exercise consistently and moderately.** Don't expect the body to perform athletic miracles on the weekend after a week of inactivity.
3. **Avoid prolonged awkward postures** while lifting, sitting, standing or anytime.
4. **Avoid repetitive reaching.** Working with the arms extended in front of the body flattens the lumbar spine and increases disc pressure.
5. **Avoid quick, forceful stretches,** even if they feel good. All stretches should be done slowly, combined with deep breathing to keep the ribs and torso flexible.
6. **Perform dynamic sitting.** Changing positions frequently is the best recipe for spinal health. Remember to stand up and walk around ,

7. **Use armrests.** Armrests are fine when relaxed and reclined to unload the spine. They contribute to disc pressure if leaned on while performing work tasks.
8. **Reduce stress.** Stress is the primary contributor to most musculoskeletal disorders and has a significant link to lower back pain. For stress reduction, control the external environment however possible. Reduce noise levels or light if they are irritating.

Source: [Workers' Compensation Monitor](#), Volume 16, Issue 5, p.3

## Thumb-intensive tasks prone to injury

The thumb performs a variety of pinch grasps for all sorts of fine motor tasks. Being able to oppose the thumb against the index finger allows an office worker to turn a page, a help mate button a shirt or dress, or a driver secure a consumer's wheel chair.

Workers in all three of these work environments suffer thumb repetitive stress injuries (RSI) to a great degree. In fact, any work task requiring prolonged pinch grasping with the thumb, repetitive button-pushing with the thumbs, or isolated thumb movements can rapidly cause RSIs in the hand.

Tips for preventing comp claims in thumb-intensive tasks include:

1. **Avoid prolonged forceful pinching and grasping in any job.** This includes over-gripping a mouse, pencil or even a steering wheel.
2. **Use bigger handles.** Thicker diameter handles with soft grips help diffuse hand stress.
3. **Don't use the thumb as the main pressure source.** Use more stable fingers such as the index and long finger in combination. Physical and massage therapists often suffer disabling injuries from overusing their thumbs.
4. **Don't grasp and lift heavy items between the thumb and forefinger.** Grasp them flat between the palms or lift them from the bottom.
5. **Avoid activities that isolate the workload to the thumbs.** Vary the activity between fingers.

Source: [Workers' Compensation Monitor](#), Volume 16, Issue 5, p.3

## **A Program for Hazard Control**

Most employers and employees recognize the need to create a safe and healthful workplace, but some find it difficult to prepare a program or identify the necessary resources. The document, Developing a Workplace Safety and Health Program, (a free publication of MOSH) will serve as a guide to assist employers and employees in the development of a basic occupational safety and health program. Maryland Occupational Safety and Health (MOSH) recommends that all occupational safety and health programs meet or exceed these core elements.

### **Reducing injuries and illnesses can save money.**

An effective safety and health management program has economic benefits for an employer. Recent evidence suggests that a comprehensive occupational safety and health program can be an effective way to reduce the cost of absenteeism and lost production time. In addition, where effective safety and health management is practiced, injury and illness rates are significantly lower than rates at comparable work sites where safety and health programs are weak or non-existent. Lower injury and illness rates can translate into significantly reduced workers' compensation costs.

Effective management of safety and health protection may also reduce other less obvious costs of work-related injuries and illnesses. Research indicates that for every dollar that an employer spends on the direct cost of a work-related injury and/or illness, more will be spent to cover indirect and hidden costs. For example, one work related injury might cost an employer:

- Productive time lost by an injured employee, the supervisor, and other affected employees.
- Clean up and start up of operations interrupted by the accident.
- Time to hire or to retain other individuals to replace an injured worker.
- Time and cost for repair or replacement of any damaged equipment or materials.
- Cost of continuing all or part of the injured employee's wages, in addition to compensation and medical payments.
- Reduced morale among employees.
- Increased workers' compensation insurance rates.

For every dollar in medical or insurance compensation costs for a worker injury (direct cost), \$5 to \$50 more is likely to be spent to repair building, tool, or equipment damage; to replace damaged products or materials; or to make up for losses from production delays and interruptions (indirect costs). An additional \$1 to \$3 will be spent for hiring and training replacements and for time to investigate the incident. (*Management guide to Loss Control*, Frank E. Byrdm, Jr.)

### **Additional benefits**

There are other benefits of an effective safety and health program. The program provides an excellent basis for generating cooperative efforts between management

and employees that may lead to increased worker morale, efficiency and productivity.

### **MOSH and OSHA requirements**

Many industries and workplaces must comply with very specific safety and health requirements due to the nature of the work processes and the standards governing them. MOSH and OSHA have adopted more than 600 safety and health standards and more than 700 Permissible Exposure Limits (PELs). It is essential that, as part of the safety and health program development process, a determination be made as to the specialized processes at the worksite and the safety and health protection required by applicable standards.

MOSH and OSHA standards also include specific monitoring, medical surveillance, and record-keeping requirements. It is imperative that the safety and health manager identify the applicable standards and include the necessary procedures and documentation in the program.

Any agenda for a safe and healthful workplace must include appropriate elements of recognition, evaluation, control, and surveillance. MOSH offers small employers an on-site Consultation Program that provides free of charge advice and analysis on preventing workplace hazards. Some workers' compensation insurance carriers offer the services of a risk-management expert to assist in the preparation of a safety and health program and in reviewing workplace operations and applicable MOSH/ OSHA standards.

### **Each safety and health program must be specific to the site and the operations.**

Many considerations will affect the formality, complexity and organization of a company's safety and health program. Some of the major considerations are:

- The size of the organization
- Workplace operations and exposures
- Personnel capabilities
- Available resources.

### **Components of an effective program**

An effective occupational safety and health program will include the following five elements. The level of detail and complexity with which a program addresses each element varies from employer to employer. However, all programs should include all five elements.

#### **1. Management commitment and employee involvement**

Management commitment provides the motivating force and the resources for organizing and controlling the activities within an organization. In an effective program, management pursues worker safety and health with as much vigor as its other organization goals.

Employee involvement provides the means through which workers develop and express their own commitment to safety and health protection, for

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themselves and for their fellow workers. A program that is developed and implemented without employee involvement is less likely to have the employee commitment that is essential to its success. An effective safety and health program must meet the needs of both the company and its employees.

### 2. **Worksite inspection/analysis**

A variety of worksite examinations are required in this aspect of the program. The purpose of these analyses is to identify not only existing hazards, but also conditions and operations where changes might occur which would create hazards.

Lack of awareness of a hazard that stems from failure to examine the worksite is a sure sign that safety and health policies or practices are ineffective. Effective management actively analyzes the work and worksite to anticipate and prevent harmful occurrences, and encourages employees to point out hazardous situations as they occur.

### 3. **Hazard prevention and control**

Once hazards or potential hazards have been identified as part of the worksite analysis, the company must consider prevention and control measures. Where feasible, hazards should be prevented by effective design of the job site or job. Where it is not feasible to eliminate hazards, they must be controlled to prevent unsafe and unhealthy exposures. Elimination or control should be accomplished promptly after a hazard or potential hazard is recognized.

### 4. **Safety and health training**

The safety and health responsibilities of all personnel are addressed through training. Safety and health training is most effective when incorporated into other training about performance requirements and job practices. This prevents safety and health responsibilities from being viewed as separate, less important requirements. The complexity of the training depends on the size and complexity of the worksite, and the nature of the hazards and potential hazards that exist.

### 5. **Long term commitment**

The employer must make a long-term commitment to a safety and health program for the program to be effective. Employees must understand that unsafe acts are unacceptable. Management must use a series of progressive actions that reflect the company's continuing concern. These actions might begin with verbal warnings and culminate in termination of the employee for continuous failure to comply with company safety rules. Management must make it clear that it takes safety seriously and is willing to back up its policies; otherwise, the program is just another piece of paper.

Source: *Developing a Workplace Safety and Health Program*, MOSH, State of Maryland.

Editor's note: This is a free MOSH publication which also includes "Eight Steps to the Development of An Effective Safety and Health Program."

## SUPERVISORS ARE BEING URGED TO MAINTAIN AN OPEN-DOOR POLICY

Do you have employees with family members deployed in Iraq? Many managers are concerned about the mental health—and safety—of emotionally distraught and distracted workers.

Management and communications experts say supervisors need to maintain an open-door policy for employees who may be emotionally upset over the war. *When you don't have an opportunity to verbally express a fairly intense emotion, that emotion can lead to some very nonproductive behaviors*, says one Kansas City, Mo., expert.

Counselors are finding that the war is one more stressor compounding worries about a bad economy, a stagnant job market and large drops in retirement accounts. Of course, some employees are directly affected by war worries—parents and spouses or family members stationed overseas, or possibly scheduled to ship out.

What can you do? Counselors advise eating right, getting enough sleep, acknowledging feelings, focusing on things you can control and limiting exposure to electronic war news. Getting involved with your community can also relieve stress.

As a manager, you should know your employees, who might be affected, and be ready to listen.

Source: *Safety Currents Express*, April 15, 2003

## Hostility Seen as Greater Threat in Coronary Disease

Human resources managers and employee assistance professionals have a new factor to worry about. An individual's hostility level may be a better predictor of heart disease than high cholesterol, cigarette smoking, or obesity, researchers reported recently in *Health Psychology*.

Lead researcher Raymond Niaura, Ph.D., of Brown Medical School and colleagues surveyed 774 white men, who averaged 60 years of age, over a three-year period to determine whether hostility is an independent influence or a contributing factor in developing heart disease. They measured hostility levels, blood pressure, diet, alcohol intake, smoking, educational attainment, and other factors. Coronary heart disease (CHD) was found to be more common in subjects with higher levels of hostility than those with other risk factors, Niaura said.

In their paper, the researchers said high hostility levels may predispose someone to CHD through other mechanisms not measured in the study, such as cardiac arrhythmia, nervous system imbalances, or cardiovascular and endocrine-neuroendocrine response.

Source: *Occupational Health and Safety*, February 2003, p.10.

## About Driving Safely

### **8 Tips for Safe Driving: Test your knowledge**

- Q. How can you prevent being involved in a serious collision?
- A. To improve your odds of survival, learn to drive defensively. Obey the rules of the road, always wear your safety belt, and when planning to purchase a new vehicle, look for one with added safety features.
- Q. Do you need to wear a safety belt if your car has an air bag?
- A. Yes. An air bag serves as a pillow to cushion your head and face, preventing many injuries safety belts can't. Safety belts are designed to restrain vehicle occupants and prevent them from being thrown from the vehicle if a collision occurs. Your need both.
- Q. If the traffic light changes while your vehicle is standing in the crosswalk, what should you do?
- A. Stay put -- although you should plan to avoid getting caught in the crosswalk. If you back up, you could hit a pedestrian crossing behind you. If you go forward, you may cause a collision with other traffic.
- Q. When two vehicles approach the intersection at the same time, which driver has the right-of-way?
- A. No one has the right-of-way. According to the law, the driver of the vehicle on the left should yield, but the law never gives the right-of-way to anyone.
- Q. What is the most dangerous time of the week to drive?
- A. Saturdays. More than 18% of all fatal collisions occur on this first day of the weekend. The hours from 8 p.m. and midnight on Fridays and continuing to 4 a.m. on Saturdays are the times of the day when most serious collisions occur. If you must drive late at night, be alert and always wear your safety belt.
- Q. What contributes to more accidents – alcohol or speeding?
- A. Reports of total traffic fatalities indicate that alcohol contributed to 31% of all collisions, while speeding contributed to 30%. About 3 in every 10 Americans will be involved in an alcohol-

related collision at some time in their lives.

- Q. How many miles should you plan to drive in a single day?
- A. Under the best driving conditions, about 350 miles. The distance you intend to travel can be affected by many things – weather, traffic, road conditions, terrain (hilly or flat), driver fatigue and more. Always take all factors into consideration when planning a long trip.

### **NHTSA'S 2001 Traffic Safety Facts:**

- In 2001, 6,051 persons 16 to 20 years old, including drivers, passengers, pedestrians, etc., were killed in traffic crashes. Of these deaths, 2,366 were alcohol-related, meaning someone involved in the crash had a blood alcohol concentration of 0.01 or higher. For 1,899 of these deaths, someone in the crash had a BAC of 0.08 or higher.
- In 2001, 7,963 drivers 16 to 20 years old were involved in fatal crashes. The person killed was not always the driver. And, 1,839 of these drivers were involved in alcohol-related crashes.
- In 2001, 3,529 drivers 16 to 20 years old were killed in traffic crashes. Of these drivers, 1,083 had a BAC of 0.01 or greater and 873 were intoxicated with a BAC of 0.08 or greater.

### **Dangerous Misuses of Air-Bag Switches**

A NHTSA study of motor vehicles equipped with air bag cutoff switches showed that the on-off switch was misused 27 percent of the time — either left on when child passengers were in the front seat, or turned off when the seat was occupied by adult passengers.

Although air bags have saved more than a thousand lives, NHTSA said that as of April 1, 2001, it was aware of 104 child deaths attributed to the force of a deploying the bag. In 1995, NHTSA allowed manufacturers to install an on-off switch in vehicles that cannot accommodate a rear-facing child seat anywhere but in the front seat, such as pickup trucks and cars with small or no rear seats.

Failure to use the cutoff switch endangered nearly half the front-seat passengers younger than 13, a total of 1,637 interviews conducted in California, Georgia, Michigan and Texas showed, According to NHTSA. Drivers told interviewers, incorrectly, that air bags needed to be turned off only for babies or children younger than their passenger, or that they left the air bag on all the time.

Among drivers with adult passengers, 18 percent kept the switches turned off because their vehicles often carry child passengers, thus depriving adult passengers of air bag protection.

Source: National Safety Council