

Back Injury Control Program

Back injuries cost employers billions of dollars each year. These workplace injuries account for approximately 30 percent of all Workers Compensation claims and up to 40 percent of all associated costs. To control these costs, a back injury control program should be implemented.

Loss evaluation

In order to plan for the needs of the back injury control program, previous loss experience should be analyzed. Sources of information include supervisors' accident reports, OSHA records, and insurance carrier loss runs. When analyzing this information, it first must be determined if back injuries, strains, etc., are a high frequency or a high severity type of loss for the company. Are trends evident? What shifts, departments, jobs, or individuals are responsible for the losses? This analysis is crucial for developing further program objectives.

Program organization

The back injury control program should be integrated into the company's existing safety and loss control programs. The responsibility for implementing the program should be assigned to a properly trained individual within the organization.

Management's initial actions should include:

- Establishing specific goals and objectives for the program
- Preparing a written policy statement and communicating it to all employees
- Assigning responsibilities. This will involve all job functions, all management levels and the labor force.
- Developing procedures to communicate results to top management. Management must review the results and provide additional direction and emphasis where needed.

Ergonomic controls

Manual material handling tasks throughout the operation should be evaluated using ergonomic principles. The first step is the identification of all job tasks that have a high frequency or severity of worker injuries or complaints.

Job tasks should then be evaluated and improved utilizing the ergonomic standards established for the general population. These standards include the interrelationship of lift weight, lift distance, lift position, lift frequency, object size, and twisting motions.

The ideal ergonomic control is to eliminate manual lifts entirely by using automation or mechanical lifting devices, which in addition, often improve productivity.

Administrative controls

Employee selection — Employees subject to material handling stress should be fit for this type of work. If done, post-offer/pre-hire medical exams should include tests to identify individuals with previous back injuries or back abnormalities.

An alternate selection method is isometric strength testing which evaluates the worker's strength relative to job demands. This testing can be contracted to an outside clinic, or a strength testing device can be purchased for in-house use. Employing this method, however, requires a very thorough evaluation of job lifting demands in order to set standards for selection.

Back X-rays as a screening device have proven of little value. Only a small percentage of previous injuries can be identified in this way. Back X-rays can be used on a physician's recommendation if further evaluation is needed.

Employee rotation — Establishing a worker rotation program can be an effective control to reduce the repetition and duration risk factors for back injuries. Cross training and job broadening also enhance job satisfaction.

Rules — Rules should be developed for safe lifting procedures, maximum lift weights, use of two-man lifts, and the proper use of material handling devices. These rules should be given to each employee upon hire and should be emphasized in the employee's initial training session. Ergonomic guidelines should be used as a basis for these rules.

Employee training — All employees should be thoroughly trained in understanding how the back works and how it should be used. It is important that the company's lifting rules and the safe use of material handling devices is covered.

The employee's training to prevent back injury should consist of the following items:

- Loss statistics concerning the company and the individual's department should be reviewed.
- It is important that the employee understands how the back functions. The structure of the back should be discussed with particular emphasis on the lower back area.
- The employee should be instructed on the importance of back fitness including posture and appropriate exercise programs.
- Proper lifting technique should be demonstrated and explained. The rules and use of material handling equipment and the need to get help when necessary should be stressed.
- It is very important that the supervisor be involved with regular follow-up, reviewing the use of equipment, proper lifting techniques and exercise.

Accident investigation — As with all major accidents, back injuries should receive prompt and thorough investigation to uncover the accident cause and develop corrective measures. This should be done by the supervisor. Special attention should be directed to the details of the lift, previous back injury, and previous training received. All investigations should be reviewed by the safety director and recommendations for changes or modifications made to top management.

- Handling and reaching for objects that cannot be handled close to the body
- Twisting the torso while lifting or handling an object
- Repetitive or sustained bending over
- Repetitive load handling
- Handling objects beyond individual capabilities

- Lifting above shoulder height
- Awkward movements or postures

Some possible engineering controls include:

- Use powered and non-powered mechanical aids.
- Reduce the weight of an object.
- Reduce the frequency that items are lifted.
- Eliminate redundant handling of objects.
- Use adjustable chairs.
- Do not store items below knee height or over shoulder height.
- Establish maximum lifting limits.
- Specify objects that require mechanical aids or two worker lifts.
- Change the height of the work station.

Program implementation

A successful back injury control program will utilize a combination of engineering and administrative controls to eliminate or minimize back injuries. In general, a successful program will include the following three elements:

- Worker involvement in problem identification and job redesign
- Continued training of supervisors and workers
- An active, supportive top management team

Motivational devices can be used to educate and reinforce the importance of the back injury control program. These can include company newsletters, incentive programs, meetings, posters and bulletins on back safety.

Finally, when a back injury does occur, efforts should be directed toward worker rehabilitation and reindoctrination into the work force. This will involve a concerted effort involving the insurance carrier's claims department, plant management and the injured worker's doctor. The goal is to establish a target date for the injured worker's return to light/regular duties. Early recognition and intervention into possible back claims helps reduce injury severity and cost.

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