Issues Surrounding Musculoskeletal Injuries

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Low back pain and disability is currently a stable part of work culture in many industries. The multi-factorial genesis of these injuries has been the source of much difficulty for companies that attempt to manage these injuries. Briefly, I suggest looking at the position of the key stakeholders in this process.

The relationships between employees with back pain, company officials, insurance carriers (including WCB) and health care providers will greatly determine the effectiveness of any company's success in managing soft tissue injuries. The injury/disability experienced by the employee and paid for by the employer seems to vary according to these relationships. Injury rates can be viewed as coming from two sources:

1) Tissue Failure
2) Reporting Tendencies

Tissue Failure- The simplest of injuries to manage despite their severe nature are those where the tissue failure is visible such as a compound fracture or a laceration. There is little dispute and the body is very tolerant of one-time insults like these. Also, the emotions generated by dramatic injury are those conducive to comfortable and compassionate return to work. Soft tissue injuries would be the antithesis of this. Rarely are there external signs for others to view and the fact that individuals respond differently to similar injury environments complicates the situation. This makes room for people to colour their evaluation of the injury with significant bias. At this point, the relationships I described above often leave their mark on the management process.

There are several factors that effect tissue tolerance and the likelihood of injury:

1) Ergonomic forces applied to tissue such as peak forces and repetitive strain forces
2) Fitness, strength and flexibility
3) Genetic connective tissue characteristics
4) Nutrition and chronic illness (eg. diabetes)
5) Fatigue
6) Prior injury
7) Anthropometrics (tall/short, long/short arm etc.)

Understanding the factors that cause human tissue to fail gives us a chance to reduce forces to tolerable levels. Ergonomic evaluation, managing shift work/fatigue and work cycles as well as task organization can reduce force and maximize rest benefits so that work does not deplete employee resources to symptomatic levels. Devising processes to identify and manage risk of strain will reduce frequency of injuries as well as severity.

Reporting Tendencies-

This complicated area is by nature the source of subjective error and variability. It is true that the experience of having pain at work will be individual and variable. Often, two

employees will present with essentially the same injury on paper. Even if there are two matching reports, one can represent a time loss injury with severe disability while the other one never gets more severe than mild soreness with no effect on work ability.

There are of course many factors that affect the likelihood that an employee will report an injury:

1) Perception of management for reporting injury
2) Repercussions from reporting, real or perceived
3) Labor/Management relationship on other issues
4) Personal experience with prior reporting
5) Job Satisfaction
6) General psychosocial predictors
7) Cultural bias about injury and pain

… make your own list

Ultimately, it is difficult to predict where and when some cases will occur. What this means is that two people with the same injury may have a completely different experience, depending upon the relationship they have with their employer, their health care provider and their insurer. The evidence suggests that management of work related musculoskeletal injuries may be improved by a variety of means. Effective site communication, clear expectations, easy implementation of the reporting process, supportive reception of legitimate injury reports and a flexible return to work policy will help facilitate an effective injury reduction initiative. Part of the solution is having health-care professionals, managers and employees all “see the same injury”. Having an ergonomic assessment process and a responsive solution implementation process gives managers a tool to work with employees on injury risk. Clearer understanding of risk for injury reduces the grey area where managers find themselves trying to second guess employees and health care people. Also, providing health care professionals with a background in the job tasks improves the certainty that they have in making a diagnosis and recommendations. The caring professions have as their responsibility the protection of their patient’s health. Improving the communication between doctors and work sites facilitates return to work and modified duty options as well as helping the employee confidence in management motives. Management is flexible to design compassionate but effective systems to identify risk of injury. Developing successful programs to ameliorate the impact of injuries on the employee as well as on performance will reduce overall cost while improving the experience for the employee.

Health care in Canada has historically followed the “if it ain’t broke, don’t fix it” approach. Get care when you are sick. Hard to argue with that except to add that regarding soft tissue injuries, by the time it hurts a lot, you have a big problem on your hands. Consider a time line. A healthy twenty-four year old third year apprentice starts work. Over time, there are cumulative effects of work strain, lifestyle changes implied by a full work schedule, less exercise, more fatigue as his family demands increase. Suddenly, he is thirty-five with three children, he has little time to monitor his own health as he works all the overtime he can. Morning low back pain is attributed to getting older. When an acute

low back episode strikes…and it will, will he see it as a work related problem because he's been telling them for years to fix that thing at work or will he see it for what it may be, a warning signal that he needs to make some changes if he is to be able to continue the lifestyle he has afforded his family so far? His relationship with work, his health professionals and his community will all affect his perception of that episode. In Canada at least, if an employee says it happened at work, it needs to be reported and will likely become an injury. This is determined as well by the physician's perspective regarding WCB and the employer. Also, his practice dynamics and personal culture regarding employee injuries will affect his decisions about the case.

Early treatment of low-grade dysfunction is one way of improving outcomes, reducing reportable injury, lowering time loss incidence and duration as well as improving the relationship loop. Providing health services to aid in early intervention can facilitate successful strategies to head off injury occurrence rates as well as maximize communication between all parties. Providing these services in conjunction with ergonomic services and general injury prevention training allows one-to-one case management and individual solutions to be generated.

My experience is that a program of ergonomic processes to address the equipment, health care provided early in the strain/injury development process to address individual tissue tolerance and training in safe work and general health issues can significantly impact injury rates and the employees experience at work. One of the recurring lessons for me has been that the emotional environment of a work site will determine success of an early intervention program. As with so many things corporate, employee and management perceptions determine implementation success.