

RISK CONTROL SOLUTIONS

A Service of the Michigan Municipal League Liability and Property Pool and
the Michigan Municipal League Workers' Compensation Fund

A BASIC PLAN FOR PREVENTING BACK INJURIES

OVERVIEW

Today, back injuries are the most prevalent type of workplace injury. Over two million injuries occur annually and experts estimate that eight out of ten Americans will suffer a back injury sometime during their lives. Increased turnover and medical bills that can be attributed to low back pain make back injuries the most expensive medical problem for municipal employers. Additionally, they can be a source of fraudulent claims. Members of the Michigan Municipal League's Workers' Compensation Fund have recognized the need to address this issue.

Lifting (materials handling) related injuries combined with back related slip/trip/fall incidents were responsible for approximately 48% of the frequency (number of claims) and 66% of the severity (cost) in the Michigan Municipal League's Workers Compensation Fund in recent years. Each year our members experience approximately \$3.8 million in losses due to back injuries. With these numbers it is obvious that focusing on back injuries is the most effective cost saving effort that can be instituted.

OCCUPATIONAL AND NON-OCCUPATIONAL CAUSES FOR BACK PAIN AND INJURY

Numerous factors can contribute to or aggravate low back injuries and pain. The major occupational causes are:

- **Physical work.** Blue-collar workers suffer significantly higher rates of low back pain, absenteeism, and symptoms of sciatica (pain radiating down the leg) than white-collar workers. The higher injury rate results from the greater frequency with which such workers lift objects. With the reductions in manpower recently, many employees are required to do more with less available manual assistance.
- **Bio-mechanically stressful postures.** These postures, which include twisting at the waist, prolonged static postures, such as forward bending and prolonged sitting, result in a five-fold *increase* in low back pain.
- **Whole body vibration of low frequency** (4 to 10 hertz). Operators of autos, trucks and heavy construction equipment frequently experience this type of vibration. There is substantial data that shows that workers in these categories have significantly higher rates of serious back pain.
- **Direct trauma to the spine**, generally as a result of falls, accounts for 8 to 15% of all serious low back pain and spinal fractures.



In addition, age and lack of fitness are non-occupational causes that contribute to the development and severity of low back pain. As most of our members are experiencing an increased average age of their work force, this is a particularly relevant consideration.

Employers can protect themselves and their employees from back injuries. Prevention and education are the keys. Making changes in the workplace, educating employees about using proper lifting and material handling techniques and encouraging employee wellness all help assure many hours of work and play without pain.

CONCEPTS IN PREVENTION

Is low back pain preventable? The answer is "yes and no." Occupational epidemiology indicates that a substantial amount of low back pain will occur even if the level of physical stress is low. At the same time, research in ergonomics and bio-mechanics strongly suggests that improved workplace design and appropriate engineering controls can prevent one third of occupational low back pain. Measures employers can take include:

- Reducing mechanical spinal loading to within or near National Institute for Occupational Safety and Health (NIOSH) criteria;
- Minimizing high stress postures, low level lifts, axial trunk rotation, static postures, asymmetrical movements under load and repetitive motions;
- Matching worker abilities to job performance requirements; and
- Administrative controls such as job rotation.

Taking these steps can dramatically reduce the frequency and severity of back injury related workers' compensation claims. In addition, improved workplace design can allow many more workers to perform their normal -- or alternative tasks -- even when they are experiencing low back pain.

WELLNESS

Real prevention begins with education. Employees need to know that low back pain is a condition common to many people. They need to understand that it is only partially preventable through improved work methods and workplace design. Most of all, they need to learn the things they can do to protect themselves.

An education program that stresses proper lifting and material handling techniques and the importance of proper diet and exercise to back health is essential to reducing the number and severity of back injuries. Instituting a wellness plan can encourage employees to take responsibility for their health. Wellness plans give employees information about health and fitness. They may also provide employees with the facilities they need to achieve fitness.

A complete fitness program, including stretching, strengthening and aerobics exercises, is important to a healthy back. It is essential to condition all the muscles that help support the spine. Strengthening the large muscles in the arms, hips and legs helps to compensate for muscular weakness in the back. You may wish to contact your health care provider to determine if they provide assistance in developing a program.

Because fitness is so important, we recommend that management:

- Seriously consider enrolling employees in an accredited wellness program.
- Encourage employees who want to participate in a wellness program. Encouragement can take the form of recognition, incentives, facilities or equipment.



Important Phone Numbers

Michigan Department of Department of Licensing and Regulatory Affairs, CET Division	517/322-1809
MI. Dept. of Public Health, Bureau of Occupational Health Div.	517/335-8250
MML Risk Management Services	734/662-3246
Loss Control Services	800/653-2483 800/482-2726

Note: This document is not intended to be legal advice. It does not identify all the issues surrounding the particular topic. Public agencies are encouraged to review their own procedures with an expert or an attorney who is knowledgeable about the topic.

SELF ASSESSMENT

BACK INJURY PREVENTION

Back pain is one of the most common complaints from employees. Back pain often results in high medical expenses, lost work time and productivity as well as permanent disabilities. It is important, therefore, to identify back pain as a problem and seek measures to reduce the cause of injuries as much as possible.

Does your organization:

1. Have a plan to reduce these major causes of lower back pain?

Yes No

Some causes of back pain include;

- Repeated or excessive physical work.
- Stressful postures such as twisting, static postures, or prolonged bending.
- Whole body vibration from equipment.
- Direct trauma to the spine from falls.
- Age of employees.

2. Taken other preventive measures?

Yes No

Do you:

- Match worker ability to job requirements?
- Install administrative controls where appropriate?
- Identify factors that may aggravate back pain?
- Train employees in ways to reduce back pain?
- Encourage employee participation to reduce injuries?
- Investigate employee injuries and determine cause?

3. Have a back injury prevention plan?

Yes No

Does the plan:

- Identify factors that may cause back pain;
- Train employees on proper lifting techniques;
- Train employees on procedures to reduce stress to the back; and
- Encourage employees to practice healthy habits on and off the job?

4. Have an established an employee Wellness Program?

Yes No 



An effective Wellness Program includes:

- Educating employee on the hazards and on methods for preventing injuries.
- Providing employees with information on health and safety.
- Encouraging fitness programs through incentives.
- Providing fitness opportunities.
- Using an accredited wellness program.

Conclusions



If you were able to answer “yes” to all four of the above questions and your organization follows most or all of the suggested practices, then your organization has reduced its exposure to future claims. You should congratulate yourself.



If you were unable to answer “yes” to one or more of the four critical questions, your organization may have a greater exposure to back injury claims. Missing components of one or more of the recommended practices may also indicate a deficiency in your current program. You should take one or more of the following actions:

- **Correct any deficiency that may exist;**
- **Contact the Michigan Department of Licensing and Regulatory Affairs, CET Division at 517/322-1809;**
- **Contact MML Risk Management Services at 800/653-2483; or**
- **Contact the League’s Loss Control at 800/482-2726.**

NOTE: This document is not intended to be legal advice or implied to identify all back injury or other employee health and safety-related exposures. Public agencies are encouraged to contact their health care professional for assistance in implementing these or other changes.