ZURICH®

Church safety solutions

January 2008

Inside this issue

Coming soon:
February – Accident/injury response (investigations, claims management, return-to-work)

Manual material handling

Cleaning up after the holidays and preparing for the new year may have church volunteers and staff members performing more physical activities, such as storing away holiday decorations, re-arranging furniture, shoveling snow or starting new year's maintenance projects.

Lower back pain is of particular concern with these types of activities. Most low back problems are due to muscle strains and sprains and are acute in nature, meaning the person can usually return to work within a few weeks. However, studies show people who have experienced back pain are up to four times more susceptible to a recurrence in the future.

Manual material handling, one of the leading causes of on-the-job back injuries, is defined as the unaided moving of objects, often combined with twisting and awkward postures and contributing to back, shoulder and neck injuries. Typically, these types of injuries result from repeated unsafe lifts or awkward motions and not from one specific incident.

The conventional approach to resolving back injuries suggests that employees must be "trained" to lift safely. Training is important, particularly when applied in the actual work setting, but it often fails due to a lack of reinforcement and supervision.

Church leaders are encouraged to employ a systematic approach to creating a safe lifting environment, without relying solely upon workers to lift safely. The elements of a systematic approach include the following:

- Reducing the size or weight of the materials to be lifted
- Reducing the distances the materials or objects must be lifted or carried
- For storage areas, placing the heaviest and most frequently lifted items in the middle racks in order to minimize awkward postures
- Allowing materials to be slid rather than lifted
- Providing handles on objects to be lifted
- Providing aids such as carts or dollies when heavier items must be moved
- Considering job rotation for people involved in constant manual material handling tasks

Safe lifting methods

Back injuries are among the most frequent and costly type of insurance claims submitted by church employees and volunteers. Many organizations focus their loss prevention efforts on people who routinely lift, but injuries occur more frequently to those who don't regularly perform manual material handling. Therefore, it is important to share the following safe lifting methods with all church employees and volunteers. Churches are encouraged to spend a few moments discussing safe practices before beginning any work requiring physical labor.

Alternatives to manual lifting

Different types of materials may require different lifting approaches.

Furniture:

Picking up and moving chairs and furniture during the set-up and take-down process for church services and events may not seem too difficult. The concern here is the number of times a lift is occurring. If possible, slide chairs rather than lifting or carrying them. Furniture can be easily moved using floor-saver nylon glides that are easily obtained through home centers and hardware stores.

Boxed items:

Using dollies or carts to move boxes, files, large books and copy machine paper is a better alternative to manually lifting these items. In other words, work smarter, not harder.

Children in daycare and Sunday school:

Using appropriate techniques for lifting children is important. When possible, avoid lifting by kneeling to the child's level. Some younger children may weigh 30 or more pounds and require lifting many times during the day. In these cases, a half-kneeling lift from the floor may provide for a safer lift. In this position, the adult places one knee on the ground with the other leg slightly bent. Hold the child close to your center of gravity and use your legs to push to a standing position without turning or twisting. Avoid carrying children on one hip as this places uneven distribution of weight on the spine. Last, children should be taught to hold onto your body rather than leaning away.

Manual lifting

Not every object can be easily moved using material handling equipment such as carts, dollies, lifting straps or hand jacks. When manual lifts are necessary, keep a few basic tips in mind to avoid an injury.

Avoid:

- Bending at the waist.
- Twisting at the waist.
- Overhead reaches.
- Lifting more than you are capable (typically 50 lbs. or greater without assistance)

Use:

- Material handling equipment whenever possible rather than brute strength
- Team lifts for heavier objects or those that are bulky or awkward

Remember:

- The safest lifting zone area is between your knees and your shoulders. Lifting an item off the floor or lifting an item higher than your shoulders places a greater strain on your body.

Safe lifting methods *(continued)*

The lift:

- Stay in good physical shape. Don't underestimate the importance of being in good physical condition.
- Size up the load. Never lift more than you can comfortably handle.
- Reduce the size of the load or get help – better to make two trips with smaller loads then one trip with an oversized load.
- Position feet firmly with one foot beside the load to be lifted and the other just in front of the load.
- Get a firm grip on the load, with your fingers under it if possible.
- Prepare your back, legs, hips, hands and arms to take the load.
- Keep the load close to you. Avoid reaching as you lift.
- Lift slowly and gradually. Do not make sudden jerking motions which may cause you to overexert.
- Never twist at the waist. Move your feet to change direction or turn.
- Walk slowly, keeping the load in front of you and turn by moving your feet.
- Make sure you can see where you are going. If your load obscures your sight, get someone to help direct you.
- Put the load down slowly, again, if possible, place it no lower than your knees.
- Again, keep the load close to you. Avoid reaching as the load is lowered.

Back support belts

The question of whether back support belts help or hurt the worker is one that has sparked much debate. After reviewing the scientific literature, NIOSH has concluded that, because of limitations of the studies that have analyzed workplace use of back belts, the results cannot be used to either support or refute the effectiveness of back belts in injury reduction. Although back belts are being bought and sold under the premise that they reduce the risk of back injury, there is insufficient scientific evidence that they actually deliver what is promised.

Says NIOSH, "The Institute, therefore, does not recommend the use of back belts to prevent injuries among workers who have never been injured. If you or your workers are wearing back belts as protective equipment against back injury, you should be aware of the lack of scientific evidence supporting their use."

Organizing storage areas

An organized storage area makes for a safer lift. Organize materials on a storage shelf keeping lighter weight, non-bulky objects stored toward the top and the heavier items toward the bottom. Plan out where you place materials on the shelves so that more frequently used items are placed in the safest lifting zone area between your knees and your shoulders. Another reason for placing items on storage racks is the added benefit of protection against flood damage, particularly in basement and ground floor storage areas.

Ensure that shelves are secured to the floor or wall to prevent them from tipping over. Don't overload shelves beyond their rated capacity. If you are using older or homemade shelving units and are uncertain of the rated capacity, contact a building contractor or visit a home center or hardware store to obtain more information. Many home centers and hardware stores are staffed with knowledgeable individuals who can easily provide this information. Once the rating information is obtained, churches are encouraged to stencil this information on the storage racks or shelves.

Keep aisles clear of storage items and ensure that floor surfaces are clean and free of trip hazards.

Sample material handling task checklist

No.	Yes	No	Question
1			Has the lifting of excessive weights been minimized at the church?
2			Have mechanical devices such as carts, dollies, furniture floor sliders and lifting straps been provided for those who are lifting materials?
3			Have workers and volunteers been trained in correct lifting and handling techniques before work assignments?
4			Do training techniques require holding the load close to the body?
5			Have the distances the object is being moved been minimized?
6			Have reaches below knee level been minimized?
7			Have reaches above shoulder level been minimized?
8			Have extended reaches been minimized? (Recommended reach distances from the standing position are 16 to 18 inches; recommended reach distances from the sitting position are 14 to 16 inches.)
9			Do the workers twist at the waist during lifts?
10			Is help available for heavy or awkward lifts?
11			Have pushing and pulling forces been minimized?
12			Has repetition been addressed using job rotation?
13			Has repetition been addressed using rest breaks?
14			Is the standing/walking surface level, clean, dry and wide enough?
15			Are materials used easily grasped and stable?
16			Do materials and parts have handholds?
17			Does the employee have sufficient room to maneuver at the workstation?
18			Is there a preventive maintenance program for material handling equipment?

Lessons of loss

The following "lessons of loss" are taken from real events reported to Zurich. Certain details have been changed to protect the anonymity of those involved.

Daycare worker

As part of her job, a day care worker at a church lifts children in and out of cribs and to change diapers. The day care worker had been employed by the church for two years. While tending to a child who was on the floor kicking and screaming, the worker attempted to lift her. The worker twisted her back while the child resisted. That evening, the worker experienced considerable pain in her lower back. After seeking treatment, the worker's doctor determined through an MRI scan that she had a ruptured disc. Treatments and physical therapy proceeded without positive results. After consultation with additional physicians, it was determined that surgery was necessary. The worker underwent a successful surgical procedure; however, she continues to experience considerable pain and has not yet returned to work

Church maintenance worker

A building maintenance worker was moving a piano to set up for an upcoming church event. He felt a sudden pain in his lower back and asked to see a physician. The physician recommended conservative treatment; however, the worker continued to experience a great deal of debilitating back pain. Further medical assessments determined that the worker experienced a herniated disk that prevented him from continuing this type of work. The worker was assessed for vocational rehabilitation away from custodial and maintenance work. Ultimately, the worker required extensive surgery and has been out of work for some time. The cost of the claim exceeds $80,000.

Senior pastor

A senior pastor was helping to move office furniture when he felt a sharp pain in his lower back. As it turned out, the pastor had degenerative disk disease, which was aggravated by the physical activity. The pastor was given a series of epidural injections to reduce the swelling and alleviate the pain. Unfortunately, these methods were ineffective. The pastor then underwent extensive surgery to fuse the vertebra in his spine. Following the surgery, the pastor was progressing well until he slipped and fell, re-injuring the site of his previous back injury. The pastor again underwent surgery to repair the area, but now lives with considerable pain.

Lessons learned:

In all of these cases, the injured people suffered from considerable pain. Lifting within your abilities is a critical part of staying injury free. People who do not lift routinely in their jobs are more likely to injure themselves than those who lift for a living, but this is still no guarantee against injury.

Remember to avoid:

- Bending at the waist
- Twisting at the waist
- Overhead reaches
- Lifting more than you are able (typically 50 lbs. or greater without assistance)

References

Zurich Risk Topics: Lifting and handling office materials

DHHS (NIOSH) Publication No. 94-127 October 1996
http://www.cdc.gov/niosh/backbelt.html

If you have any questions or if you would like to receive electronic copies of any of the referenced materials above, please write to us via email at: churchsafety.solutions@zurichna.com.

Zurich Services Corporation

1400 American Lane, Schaumburg, Illinois 60196-1056
800 982 5964 www.zurichservices.com

Zurich Services Corporation
Risk Engineering

Because change happenz℠

ISO 9001:2000
Quality-Assured Solutions Provider

(01/08) 07-4708

ZURICH®