



City Safe

A Guide To Assist In Training
Employees About:

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Learning Retention

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City Safe is a publication of the League of Kansas Municipalities and the Kansas Municipal Insurance Trust for the purpose of educating and informing cities about loss control methods and risk management. Contents herein are not intended to provide specific legal or medical advice. Readers should seek advice on specific concerns from a qualified professional.

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All too often in workers' compensation newsletters, there is some type of article about lifting with your legs (not with your back), safety guards, and/or repetitive motion injuries. Education and practice regarding prevention and good ergonomics are the backbone of workers' comp safety. These, plus countless other safety topics, must be repeatedly addressed in order to become a part of the culture of the organization. Workers must know proper techniques and safety systems, and apply them daily. Most employees can watch hours of videos about work safety; he/she can sign off on the attendance sheet, and probably even pass a post-test proving they watched the video and have a general idea of the safety concepts covered. Watching videos and completing tests is good, but it does not represent a comprehension of safety training material. Your new employee may be able to watch a video and recite what it was about five minutes later—but, that is not enough. It is your responsibility, as an employer, to help each employee apply what he/she saw on the video in the work site everyday.

Safety training is only the beginning of creating a "culture of safety" in your organization. Three other things must occur for the employee to have any benefit from the training: 1) **Comprehend** the subject at hand; 2) have **Retention** of the subject; and 3) **Use or Practice** what was learned.

Comprehend. Employees must be able to comprehend what they are being taught. If they are confused or uncertain about what the lesson is, or an employer incorrectly assumes that the employee has mentally grasped the safety concept, the training has been wasted. The employer would need to find a better method of safety training to truly benefit the employee.



For the best comprehension, most of the standard materials used should be written in common terms. No matter which safety program that a city uses, the writers of the training program know that if the lesson is so complex and loaded with incomprehensible jargon, then few will be able to grasp the material. The supervisors should ask a lot of questions of the trainee about what the new material covered.

Let the trainee know that it is all right not to grasp all the fresh material in the first session. However, before the new hire is placed in the field, she/he should have the basic safety concepts well in hand. Comprehension is the basis for all learning.

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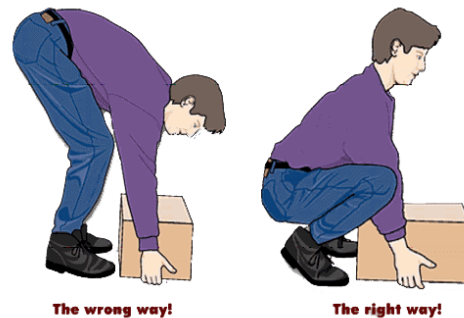
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An employee may be able to comprehend all of the information that is provided in the worker safety session, but if the employee cannot remember what they are taught, then the instruction was of little use. If you do not understand what you were taught, then you will have difficulty applying or practicing the principles of what you were supposed to have learned.

Retention. If a trainee comprehends what they have just learned but cannot retain the material, then the training session was of little value. A Retention Pyramid demonstrates how various types of interaction with the material can lead to a range of levels of preservation:

- Lecture: A person is standing up in the front of the classroom just talking about the subject at hand; the retention level is around 5%.
- Reading: The retention level is about 10%, you are only going to remember about 10% of this entire newsletter.
- A person retains roughly 20% of the material that they see audio visually; this is equivalent to plugging in a video.
- Demonstration, the retention level is 30%; that is having some type of movement with your lecture and showing how to do something.
- Discussion group is 50%, half of what is presented; this is just adding a semi-organized discussion to the end of the video or lecture.
- Doing what is learned, 75%, when being taught to lift with their legs actually making the trainee lift with their legs in a controlled environment.
- Teaching other, 90% retention levels; this can only work if the teacher teaches the material correctly.

Use or Practice. If an employee does not regularly practice what they have just learned, what good is the training? Seat belts are an excellent example. People know that they are supposed to buckle their seat belt every time they get into a vehicle (state law requires it). The seat belt is right there in the vehicle, and easily used, yet every time there is a car crash, people ask, “Were they wearing their seat belt?” Even with this wealth of knowledge on seat belts, if the seat belt is not used, then it does not do any good.



Training, comprehension, and retention will not do anyone any good if the material learned is not practiced daily (i.e., *becomes part of the culture of the organization*). Until using the lessons learned becomes a habit, the supervisors should spot check the employee to see if they are properly carrying out what they were taught. There is a difference between micro-managing the employee and protecting his/her safety. The supervisor owes it to all the employees to provide reminders until the safety lessons become a habit.

FACTS:

- The moment an injury occurs, the extent of harm or the cost to treat is unknown. Prevention is always cheaper and avoids pain and suffering.
- A second back injury is usually more complicated and costs two to four times more than the first injury.

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- Indirect costs are calculated to be 15-40 times the direct costs.
- One in four EMS workers will suffer a career ending back injury within the first four years of service. The number one physical reason for leaving EMS.
- Back symptoms are the most common cause of disability for persons under age 45 including most pre-hospital healthcare providers.
- Back injury is the number one reason for seeing a doctor other than the common cold.

GENERAL REMINDERS:

While lifting:

- Don't bend over an object you are lifting. Bend your knees, squatting in front of the object to reach it.
- Lift the object slowly and carefully, using your leg and arm muscles to lift, not pulling with your back.
- Keep your head up and look straight ahead while making the lift.
- While lifting, keep the object as close to your body as possible.
- Keep abdominal muscles tight while making the lift.
- Use the same techniques when you put the object down.
- If the object is too big or heavy to lift using these techniques, use mechanical assistance or get someone else to help.

When reaching for objects:

- Do not reach for an object unless you're sure you're strong enough to lift it.
- Use a step ladder to reach objects above shoulder height.
- Avoid awkward stretches while reaching. These stress your back and could cause you to lose your balance.
- Don't depend on structures to support yourself (e.g., a shelf support, storage rack, etc.).



National Institute of Occupational Safety and Health

The Importance of Communicating Safety Rules with Bilingual Workers

As our workforces become more diverse, we can't assume that everyone's first language is English. More bilingual workers are being hired and that creates new challenges for safety training.



Here are some tips for the effective training of bilingual workers:

- Make sure the safety message is understood. Don't assume that a nod of the head means that the message was received.
- If possible, or if in doubt, offer the training in the worker's native language. Make sure immigrants can read and write in their own language. Signed copies of safety procedures won't mean much if the worker cannot read or understand English.

Compressed Gas Cylinders

There have been many cases of property damage, injury and death caused by compressed gas cylinders. If handled roughly, they can rupture at the neck and become projectiles propelled at high speed by the escaping gas.

If you have to move a cylinder a short distance, tip it and roll it along the bottom edge. Never drag cylinders on the floor. Rough handling that scrapes or cuts the surface may cause an accident later.

Never carry cylinders by hand, even with two people. Use a cart or truck, also never lift a cylinder with a sling, they may seem strong and solid but a dropped cylinder may rupture and become a missile.

People have mistakenly used one or more cylinders as rollers or to support heavy objects. These conditions could also cause a cylinder to rupture. Do not use cylinders for any purpose other than the one it was designed for, the storage of gas.



Some cylinders have safety devices called "fusible plugs." The plugs are openings in the cylinder that are closed with a type of metal that has a low melting point. If the cylinder's temperature reaches

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the melting point, the plug opens and releases the gas. Fusible plugs reduce the likelihood of an explosion. In acetylene cylinders, the melting point is just about the same as boiling water.

If you ever have to thaw a frozen valve, use warm, not boiling water to thaw it. Never use a flame to warm the valve or cylinder.

If a cylinder leaks, move it outdoors quickly and keep it away from flames or sparks. Open the valve slightly to allow the gas to escape gradually. Post “NO SMOKING” signs in the area.

The following are some points to remember about oxygen cylinders. Oxygen is the proponent in the air that makes fire burn. Pure oxygen promotes fire more than air, and can start a fire where there is no spark or embers, particularly if it comes into contact with oily material. Never handle oxygen cylinders with oily hands, gloves, or clothing. Do not use oil or grease to lubricate valves or attachments on these cylinders. Keep the cylinder away from oil and grease.

Do not store oxygen cylinders near other cylinders of flammable gases, and do not use oxygen for compressed air.

Compressed gas cylinders are well made and they are safe if properly handled. Badly handled cylinders can cause fires, explosions, or deaths.

More Do's and Don'ts

DO

- Place valve protector on gas cylinders when the cylinders are not connected for use.
- Secure all gas cylinders properly at all times to prevent them from tipping, falling, or rolling.
- Secure the cylinder with strips of chains attached to a wall bracket, proper cylinder stand, or counter.
- Contact the supplier for disposal instructions. Have the serial number of the cylinder handy.
- Mark cylinder legibly to identify gas contained.
- Refer to the MSDS – prior to using cylinder – for information regarding proper use and toxicity.

DON'T

- Use cylinders with leaking regulators, cylinder valves, hose, piping, systems apparatus, or fittings.
- Tamper with attempt to repair cylinder valves.
- Use cylinders as rollers or supports, whether empty or full.
- Use cylinder contents for any purpose other than those intended by the supplier.
- Permit any ignition sources near uncapped cylinder openings.

Do you have an interesting or unique example of workers' compensation, and how it was dealt with? If so, please contact Andy Hixson at ahixson@lkm.org.

Safe-T-Tips

Approximately 100 employees are fatally injured and approximately 95,000 employees are injured every year while operating powered industrial trucks. Forklift turnover accounts for a significant number of these fatalities.

- Train and certify all operators to ensure that they operate forklifts safely.
- Do not allow any employee under 18 years old to operate a forklift.
- Properly maintain haulage equipment, including tires.
- Do not modify or make attachments that affect the capacity and safe operation of the forklift without written approval from the forklift's manufacturer.
- Examine forklift truck for defects before using.
- Follow safe operating procedures for picking up, moving, putting down, and stacking loads.

PICTURES NEEDED!!

KMIT is in need of *action* pictures from member cities. We intend to use these pictures on the KMIT website, in our *CompControl*, and *City Safe* publications, as well as in KMIT brochures, flyers, etc. The pictures must be of city workers working (please); no posed pictures. Digital format highly desired. Email pictures to Wendy Flowers, wflowers@lkm.org.



***Don't forget to join us for the
KMIT ANNUAL MEETING
AND RECEPTION
Monday, October 8th at 4:00 p.m.
Overland Park Convention Center
Ballroom C***



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