



Material Handling & Lifting Resource

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Introduction

- Reason
 - Historically lifting is one of the most common and most costly accident types in the CBIA Workers Compensation Program
- Purpose
 - Identify best practices to minimize lifting exposures
 - Raise awareness associated with safe lifting techniques

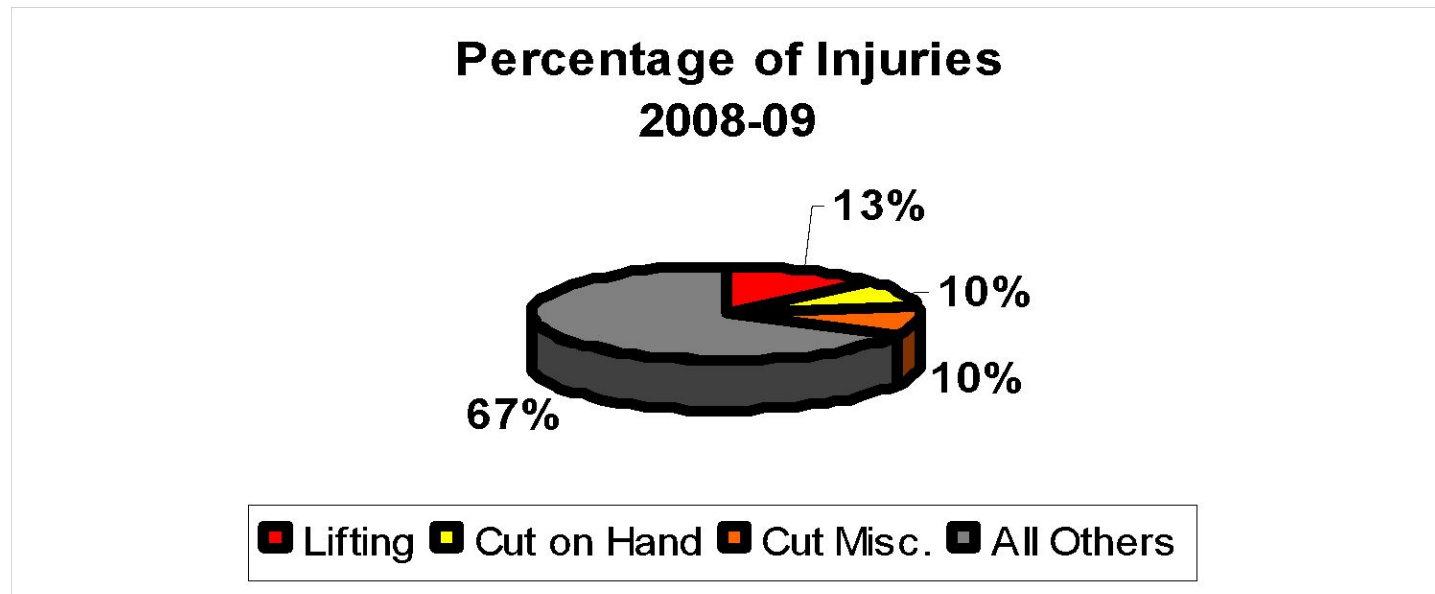
Statistics

- The Bureau of Labor Statistics
 - More than one million employees have back injuries each year.
 - Back related injuries account for one of every five injuries in the work place.
 - ¼ of all workers' compensation claims involve back injuries.

Statistics Continued...

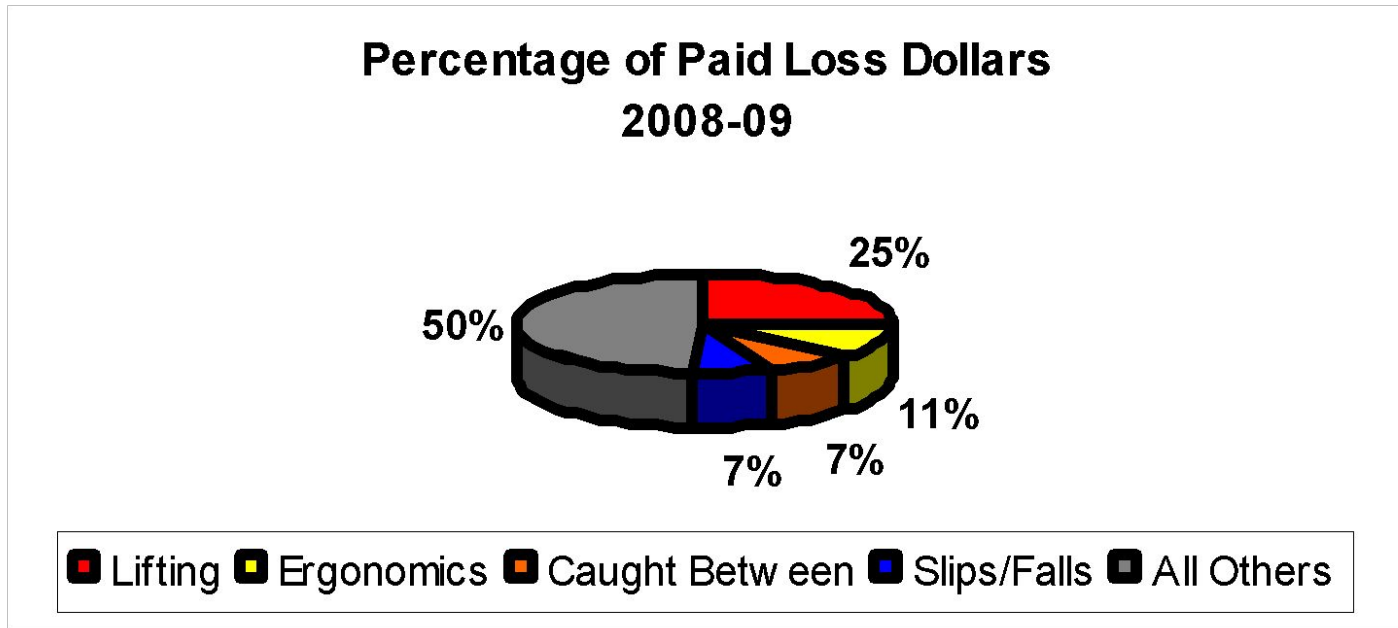
- CBIA Workers Compensation Program
 - January 1, 2008 – January 1, 2009
 - 363 workers comp claims reported with more than \$1 million in paid loss dollars
 - 48 claims directly associated with lifting
 - Paid loss dollars for those claims were approximately \$270,000.

Statistics Continued...



- CBIA Breakdown
 - 13% of all incidents in 2008-09 were lifting related
 - The next most common injuries were lacerations related

Statistics Continued...



- **CBIA Breakdown**

- 25% of paid loss dollars in 2008-09 were lifting related
- The next most expensive injury type (Ergonomics) had \$150,000 fewer paid loss dollars.

Why is lifting training important?

- What is effected?
 - Reduced work capabilities
 - Insurance costs
 - Most importantly, your quality of life



Why is lifting training important?

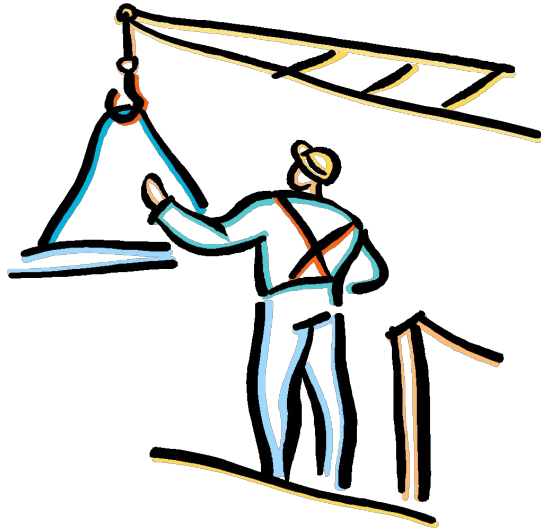
- Affects
 - Often considered long term
 - Even with the best medical care, pain may always be present
 - Risk of pain medication addiction



Ways to reduce, control, and or eliminate lifting exposures

- When attempting to minimize lifting exposures, the following should be considered:
 - Man versus Machine
 - Best possible work practices
 - Last resort, when lifting manually, lift smart

Man versus Machine



- When ever possible, first let a machine do the work for you:
 - Overhead cranes and hoists.
 - Fork trucks
 - Pallet jacks
 - Lift tables
 - Two wheelers
 - Genie lifts

Man versus Machine

- Real Life Examples:



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Man versus Machine

- Real Life Examples:



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Man versus Machine

- **Benefits:**
 - If a machine breaks it can be replaced or repaired, but if your back breaks???
 - Using a machine will reduce the total amount of manual material handling
 - It will improve your job and allow you to become more productive
 - It will reduce likelihood of accidents or injuries

Man versus Machine

- Considerations:
 - All machines or engineering controls should be on regular preventative maintenance and or inspection programs
 - All employees that utilize the machines or equipment should be adequately trained
 - Best practices should be developed to control any added exposures, machine guarding, struck by, trip/falls...etc

Best possible work practices

- When conducting your job, consider the following:
 - Is this the best way to do the job
 - Are there any non-value adding motions
 - Is there a way to reduce the amount of manual material handling



Best possible work practices

- Is this the best way to do the job
 - Remember you are the one that is performing the job on a daily basis, are there any modifications that can be made to improve your situation?
- Are there any non-value adding motions
 - Are there any tasks that are considered not necessary to perform your job, if so, these tasks should be eliminated, which should reduce strain exposures

Best possible work practices

- Can we reduce the amount of material handling
 - Engineering controls: As discussed previously, if you feel your job would be improved with an engineering control, inform your supervisor and or management
 - Modified work stations: Is there a way to set up your work area to reduce lifting exposures

Best possible work practices

- Can we reduce the amount of material handling...cont
 - Storage practices: Always attempt to keep heavier products at waist level, this reduces the exposures associated with reaching and bending.

Best possible work practices



- Good work station design
 - Conveyor is set up same height as scale
 - Employees can roll products with minimal manual exposure

Best possible work practices



- Work process change
 - Company started using ramp to load skids
 - Instead of having to lift the spindles, they can be rolled onto, reducing exposure

Best possible work practices



- Real Life Examples:
 - A conveyer system is used to transport product
 - Notice reaching on left
 - Conveyer lowered, employee on the right isn't exposed to as much strain

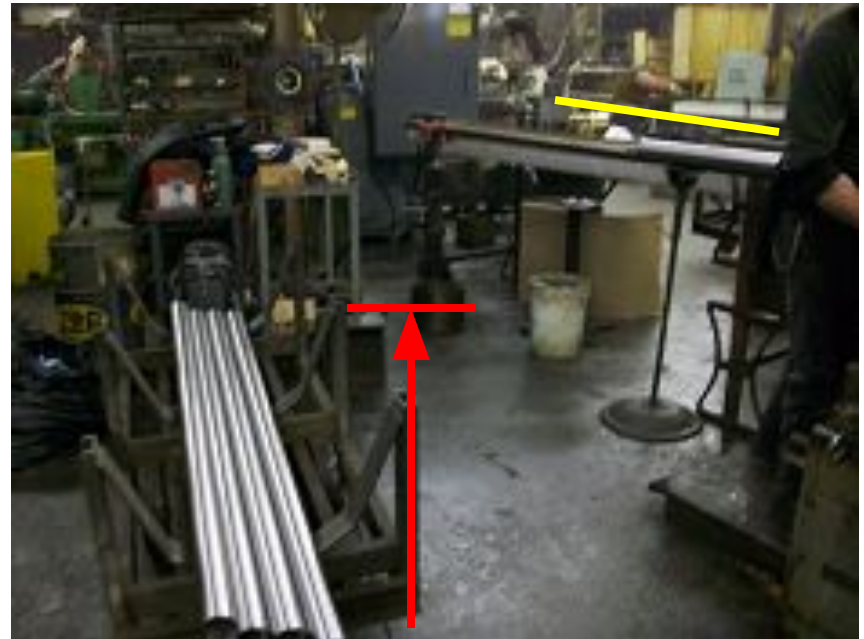
Best possible work practices



- Real Life Examples:
 - These are two identical machines
 - A simple improvement such as a plastic bucket will reduce the strain as employee does not have to bend as far to pick up container

Best possible work practices

- Possible areas of improvement:
 - Pipes are picked off rack and placed onto bracket
- Improvements
 - Raise rack to waist height (red)
 - Place rack in front of employee to minimize turning (yellow)



Best possible work practices

- Benefits:
 - Better flow of products
 - At times improvements are cost effective
 - Reduced exposures
 - Reduced labor involved with job processes

Best possible work practices

- Considerations:
 - If you feel improvements can be made to your job process, communicate to appropriate people
 - Understand that one improvement may not work for all operations, test before final implementation
 - Some improvements may have costs associated, understand that budget restrictions may make it difficult to implement all improvements
 - Always question, is there a better, more efficient, and safer way to do my job

Worst case scenarios

- What to do:
 - If you can not use a machine or modify best practices, then you should always attempt to:
 - Use group lifts
 - Use appropriate manual lifting techniques

Worst case scenarios

- **Group lifts:**
 - Make sure there are enough people to help
 - Develop a clear plan prior to lifting object
 - Make sure every individual has a secure grip
 - Use proper lifting techniques
 - Have one individual provide direction



Worst case scenarios

- Use appropriate techniques:
 - Think before lifting
 - Bend at the knees
 - Get close to the object
 - Test the weight
 - Get a secure grip
 - Lift with legs

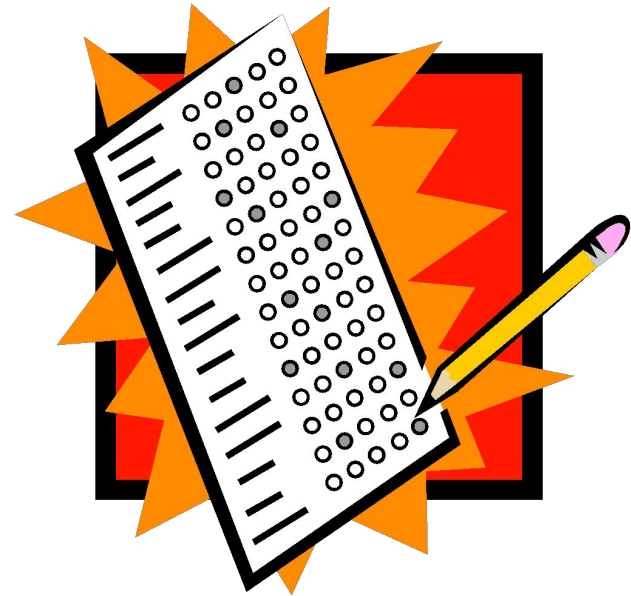


Conclusions

- When lifting always remember:
 - If at all possible utilize a mechanical aid (machine or equipment) to assist with lifting
 - Make improvements to your job or operation to reduce the manual material handling exposure
 - If a machine can not be utilized, implement group lifts and use proper techniques
 - Always lift with your legs, not your back

Knowledge Assessment

- Test your lifting knowledge
 - Please take the time to complete the knowledge assessment
 - Remember we are simply trying to raise awareness and reduce the possibility of lifting injuries



References

- Training resource created by;
 - Rob Bolduc
Loss Control Consultant
CBIA/FutureComp
- Statistics from;
 - The Bureau of Labor Statistics
<http://www.bls.gov/>
 - FutureComp Claims System: ATS

References

- A special thank you to the following CBIA Members for allowing pictures;
 - BP Products
 - United Tool & Die
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