

2004

Liberty Mutual Workplace Safety Index

The direct costs and leading causes of workplace injuries

The cost of serious workplace injuries grew faster than inflation at a time when the number of such accidents fell, according to the latest Liberty Mutual Workplace Safety Index. Serious workplace injuries cause an employee to miss six or more days of work.

Findings from the Workplace Safety Index include:

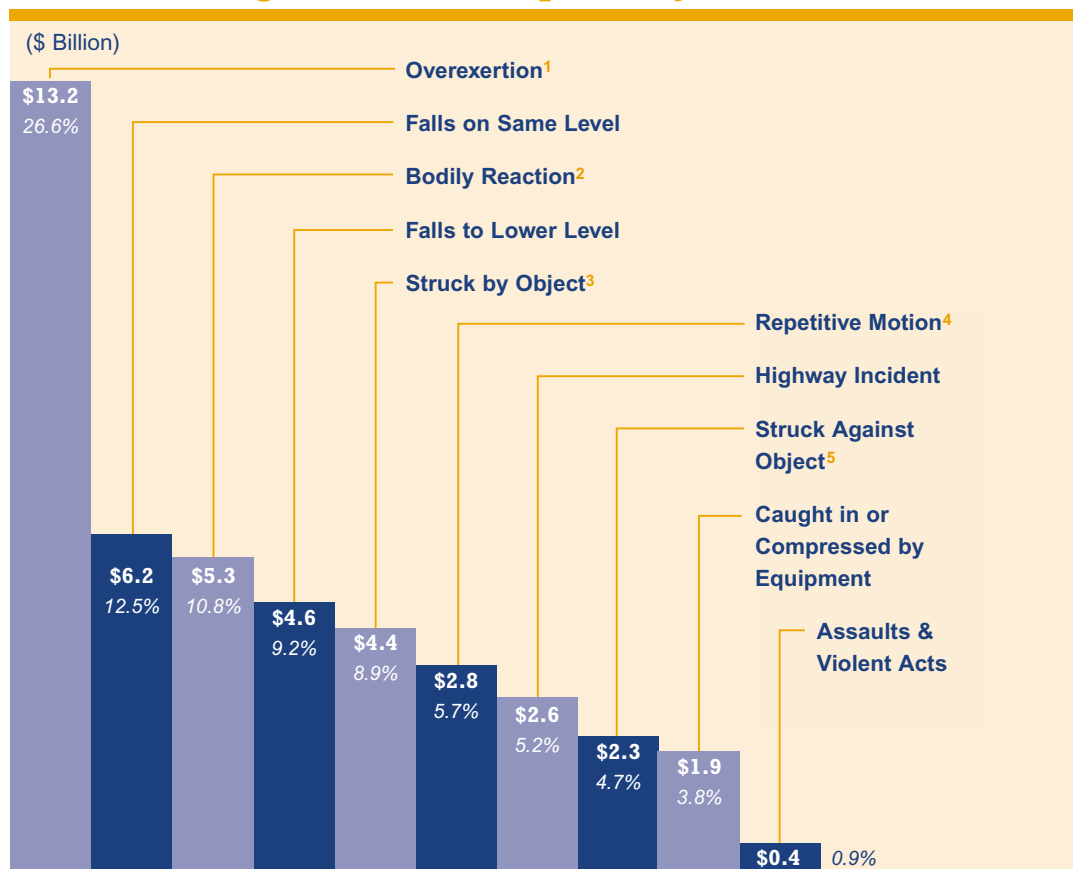
- Serious work-related injuries cost employers almost \$1 billion per week in payments to injured workers and their medical care providers, growing to \$49.6 billion from \$46.1 billion in 2001
- The number of serious work-related injuries fell 0.7 percent in 2002 from 2001 and 7.8 percent between 1998 and 2002
- The cost of these injuries grew 6.5 percent between 2001 and 2002, and made up more than half the total growth between 1998 and 2002 (12.1 percent) after adjusting for inflation in medical and income benefits
- The top three injury causes (Overexertion, Falls on Same Level and Bodily Reaction):
 - Represent 50 percent of the total costs of serious workplace injuries in 2002, costing employers about \$25 billion a year or \$500 million a week
 - Are the fastest growing of all injury causes. Costs for each of the top three rose 3.8 percent, 5.9 percent and 11.8 percent, respectively, between 2001 and 2002. Between 1998 and 2002, real costs for each rose 16.4 percent, 25.7 percent and 28.7 percent, respectively
- The ranking of the top 10 causes of workplace injuries was the same in 2002 as in 2001 with only minor changes between 1998 and 2001



The Liberty Mutual
Research Institute
for Safety

The annual Workplace Safety Index is prepared by the Liberty Mutual Research Institute for Safety, which investigates the causes of work-related injury and disability. Through in-depth analysis of a wide variety of workplace issues, Liberty Mutual develops real-world solutions that help customers reduce injuries to their employees and better manage the total cost of risk.

The 10 leading causes of workplace injuries in 2002



The 10 leading causes of serious workplace injuries account for 88 percent of the \$49.6 billion cost of serious workplace injuries in 2002.

¹ **Overexertion** – Injuries caused from excessive lifting, pushing, pulling, holding, carrying, or throwing of an object.
² **Bodily Reaction** – Injuries from bending, climbing, slipping or tripping without falling.
³ **Struck by Object** – Such as a tool falling on a worker from above.
⁴ **Repetitive Motion** – Injuries due to repeated stress or strain.
⁵ **Struck Against Object** – Such as a worker walking into a door frame.



2004

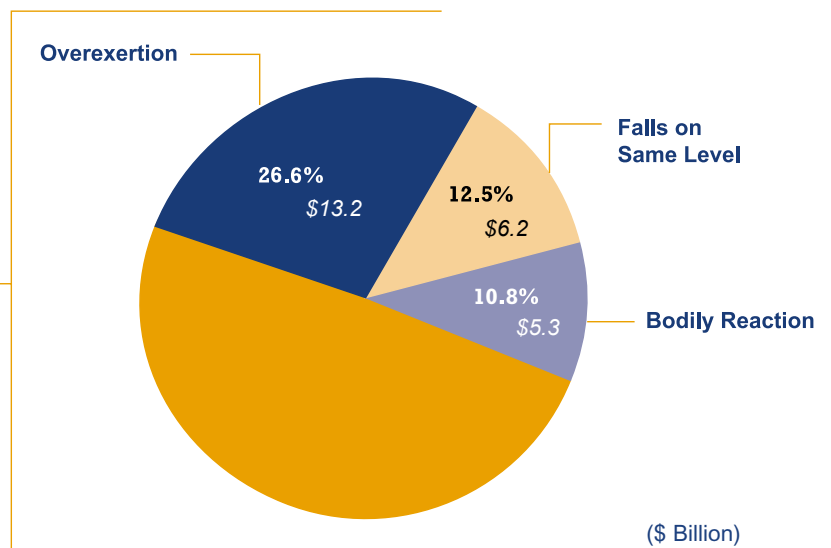
Overexertion, Falls on Same Level and Bodily Reaction

The leading causes of serious work-related injuries

Companies protect their employees and bottom line by preventing injuries from Overexertion, Falls on Same Level and Bodily Reaction. Why? Because these produced half the total cost of serious work-related injuries in 2002 and grew the fastest—after adjusting for inflation—between 1998 and 2002.

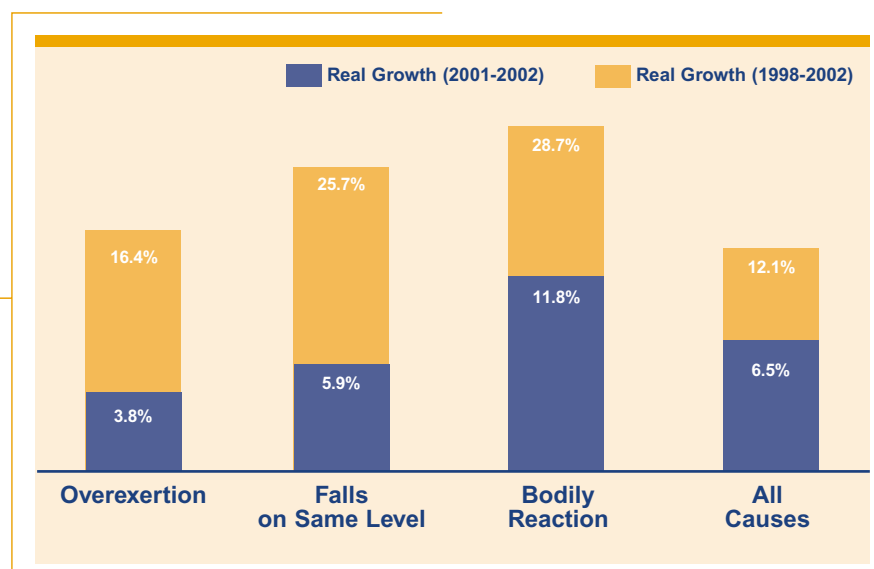
Half of the total cost of serious workplace injuries stem from the three leading causes.

Overexertion, Falls on Same Level and Bodily Reaction are the leading causes of serious work-related injuries.



The cost of these injuries grew faster than inflation.

Overexertion, Falls on Same Level and Bodily Reaction had the fastest inflation-adjusted growth in cost of any injury cause.



Protecting Employees and the Bottom Line

The value of workplace safety.

Workplace injuries aren't inevitable. Preventing injuries helps companies save their employees real pain and suffering and avoid significant—and growing—costs.

But nothing happens without a plan. And in our experience those plans that have the greatest impact on safety share five key steps:

- Identify the injuries that drive workers compensation costs
- Prioritize the ones to address
- Set clear targets for reducing each injury
- Implement changes to control risks and train workers
- Regularly measure performance and update the plan

Below are two quick illustrations that show the how and why of improving workplace safety.

1.

Challenge: Workers compensation claims and costs at a forest products company soared as it grew from a family operation to a big business. The company wanted to better manage these, particular from the leading injury causes: Overexertion, Falls and Caught in or Compressed by.

Action: The company worked with Liberty Mutual to:

- Develop a formal safety program
- Understand how employees were hurt
- Identify ways to prevent these injuries: ranging from new maintenance rules to machine guards
- Involve employees at all levels in spotting problems and solutions
- Set targets for cutting key injuries

Result: The company cut the number of wc claims 15 percent in the year the safety plan was put in place and 16 percent the following year. The cost of these claims also fell. The company's claims rate per \$1 million of payroll came down 44 percent in two years and its indemnity claim rate per \$1 million of payroll was cut 37 percent over the same period.

2.

Challenge: A transportation company wanted to decrease the number of musculoskeletal injuries—such as lower back pain and carpal tunnel syndrome—caused by Repetitive Motion at its call centers.

Action: The company worked with Liberty Mutual to create an ergonomics program that made employees more comfort at their workstations and prevented musculoskeletal and other computer-related injuries. The program included:

- Training call center managers on ergonomics and how to fit a computer workstation to individual employees
- Reviewing musculoskeletal risk factors and the need to properly adjust workstations with call center employees
- Upgrading workstations and computers as needed, making it easier for employees to adjust their equipment
- Strengthening the company's return-to-work program to help injured employees come back to work on modified duty when medically appropriate

Result: The client cut the rate of Repetitive Motion injuries causing employees to miss work by 58 percent within two years of starting the ergonomics program, saving over \$800,000.

Look, Think, Act

Guidelines for addressing the leading causes of work-related injuries.

The following guidelines are a good starting point for evaluating and preventing the top five causes of workplace injuries.

Injury Cause	Guidelines
Overexertion	<ul style="list-style-type: none"> Evaluate production, storage and display methods to remove excessive reaching, bending, pushing, pulling, lifting, loading, and unloading Use mechanical lifting aids, such as hoists or adjustable lift tables, to reduce the need to bend, reach and twist. Use carts, tables or other devices to move and position heavy objects Design jobs to allow sufficient rest pauses
Falls on Same Level	<ul style="list-style-type: none"> Keep floors free of holes, water, grease and other potential fall hazards Provide footwear with the tread pattern and soling necessary to prevent slips Provide adequate lighting for all interior and exterior walking surfaces Highlight transitions in floor height Remove snow and ice in parking lots and on sidewalks Use appropriate non-slip floor surfaces, cleaners and waxes
Bodily Reaction	<ul style="list-style-type: none"> See Overexertion, Falls on Same Level and Falls to Lower Level
Falls to Lower Level	<ul style="list-style-type: none"> Use appropriate ladders capable of comfortably reaching work or storage heights Use mechanized material handling devices to access higher levels Regularly inspect and repair all ladders and lifting equipment Provide railing protection for areas with abrupt floor level changes (i.e. loading dock) Avoid storage of heavy or awkward items above the reach of most workers Provide handrails and slip-resistant treads for all stairs. Avoid storage of any kind on stair treads and walkways Install nets when other types of fall protection cannot be used
Struck by Object	<ul style="list-style-type: none"> Aisles should be clearly marked and unobstructed, with adequate clearance Train and supervise lift truck operators Enforce speed controls and install mirrors at blind spots to enhance visibility Stabilize overhead storage Avoid storing or displaying products or equipment in areas where people travel Restrict access underneath work areas Use equipment and power tools only with the manufacturers' guards in place Maintain all equipment and tools by following the manufacturers' guidelines When approaching mobile equipment, workers should always make eye contact with the driver



175 Berkeley Street
 Boston, MA 02116
 617-357-9500
www.libertymutual.com