Transport and storage industry
Sprains and strains prevention fact sheet

High risk transport and storage industry occupations[1]

- heavy truck driver
- bus driver
- railway and other labourer
- furniture removalist
- delivery driver
- storeperson
- mobile plant operator

Common manual task injuries

- sprains and strains to the back, shoulders, knees and ankles
- spinal disorders
- hernias

Common cause of manual task injury

- lifting and carrying loads
- handling large, awkward boxes and crates while loading and unloading
- bending and reaching when unloading boxes and cartons from floor level and above shoulder height
- double or multiple handling of loads or objects
- slips and falls from truck beds, vehicles and loading docks
- jumping down from vehicle cabs or cargo areas
- handling tarps and gates when covering or uncovering loads
- handling gates when loading or unloading
- vibration and posture when sitting in the vehicle for long periods

[1] *Queensland Workplace Health and Safety Strategy Health and Community Services Industry Action Plan 2004–07*

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Loading containers – a case study

A worker in a distribution warehouse sustains a shoulder injury after unloading a container of boxes stacked from floor to ceiling. The worker states that the boxes often became tightly jammed and a lot of force is needed to pull them out of the stack. The worker receives a serious muscle tear, which results in the worker being off for a couple of weeks before returning to light duties.

Identify the problem

An analysis of workers loading containers shows:

- workers reach and stretch above shoulder height to pull boxes from stacks
- workers repeatedly bend to get boxes from floor level and place them on pallets at floor level
- the weight of the boxes range from five to 35 kg (i.e. pre-packed furniture)
- the large size of cartons and boxes make awkward to handle
- workers are performing this task for long periods (i.e. six hours a day)
- some workers are stacking items at least once every 30 seconds until the pallet is full.

Assess the risk

Are any risk factors present?

- Working postures: workers are reaching away from the body, bending and twisting to obtain materials from stacks to put on pallets. They are constantly bending when stacking.
- Forceful exertions: workers are moving large boxes and using force when boxes are packed tightly
- Repetition: workers stack or unstack boxes every 30 seconds
- Duration: work is performed for more than two hours over a shift of six hours.

What are causing these risk factors?

- Work area design: loads are stored at ground level, work is performed in a limited work space, containers become very hot in summer and there is a forklift moving within the work area
- Nature of the load: boxes and cartons can be heavy, bulky and awkward with no handles or hand holds
- Load handling: loads are lifted and placed onto pallets.

Find the solutions

Can you eliminate the risk by redesigning the task or elements of the task?

- Eliminate double handling of packages as loads on containers are already on a pallet
- Raise pallets off the floor to between mid thigh and waist height
- Place pallets closer to the worker to minimise reaching and twisting
- Use mechanical aids such as trolleys or scissor pallets.

Can administrative controls be used to minimise risk?

- Task rotation
- Rest breaks

Review the controls

- Consult with workers regularly to ensure controls have minimised risk and have not introduced new risks.