



Safety in Manual Handling Operations Supermarkets



Occupational Safety and Health Branch
Labour Department



safety at work



**This guidebook is prepared by the
Occupational Safety and Health Branch
Labour Department**

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This guidebook is issued free of charge and can be obtained from offices of the Occupational Safety and Health Branch of the Labour Department. It can also be downloaded from the website of the Labour Department at http://www.labour.gov.hk/eng/public/content2_9.htm. For enquiries about addresses and telephone numbers of the offices, please call 2559 2297.

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Are you the injured party ?

Ah Keung has been a supermarket storekeeper for nearly eight years. He sustained back injury at work and has been unable to work for nearly one year. This is what he says:

“On that day, I was working in the supermarket as usual. Since no step ladder or stool was provided, I had to stretch my arms in order to stack the goods on the top shelves. Unfortunately, my back was accidentally injured in the process. I still remember how painful I felt. I was unable to sleep at night. After that, I went through a course of physiotherapy treatment. It has been almost one year since I was injured. I have not yet fully recovered. Although I could receive compensation for the injury, my condition is still not quite normal. The accident not only makes me incapable of working for quite some time with less income but also affects my family life and relationships with friends. I am now unable to hold my baby and cannot play in my favourite sports.”



You probably will sympathize with Ah Keung. However, the accident also affects his employer, Mr. Ho. This is what he says:

“Our company suffered a great deal from Ah Keung’s accident. After he was injured, work was delayed. Also, we had to recruit and retrain a person to replace an experienced worker. Moreover, Ah Keung’s medical bills and payments due to temporary incapacity also cost the company a lot. We are also worried about the possibility of a huge civil claims and damage to the image of our company.”

Whether you are an employer or employee, have you ever imagined that this might happen to you? In fact, the incident could have been completely avoided. Manual handling operations are now covered under the Occupational Safety and Health Regulation*. Both employers and employees have a duty to follow the requirements of this regulation and carry out manual handling operations safely.

If you do not want to be the injured party in a similar incident, read on. We will analyse the main causes of injuries, and you can implement appropriate preventive measures by following this guidebook#.

*Note 1: For more details concerning this regulation, please refer to the regulation itself or another publication of the Labour Department namely, “Guidance Notes on Manual Handling Operations”.

#Note 2: The incorrect postures and poor work practices illustrated in this publication help readers understand the problems in manual handling and adopt appropriate control measures. These illustrations DO NOT represent that the organizations, companies or persons use such incorrect postures and poor work practices in their work activities.

Common causes of manual handling injuries

■ overloading the upper and lower back. For example:

- ◆ lifting or holding heavy items;

■ improper posture during work. For example:

- ◆ stooping;
- ◆ reaching upwards;
- ◆ bending sideways;
- ◆ twisting;



Avoid reaching above your shoulders.



Avoid bending forward.



Avoid twisting the back.



Avoid bending sideways.

- moving loads away from the trunk;
- loss of balance while lifting;
- unexpected weight bearing;
- restricted room to manoeuvre;
- insecure grip on heavy, awkward, hot, cold, sharp or slippery objects;



Cramped conditions hinder the adoption of good manual handling posture.



Slippery surfaces increase the risk of manual handling operations.

- slippery, uneven floors or obstructions along the transport routes;
- uncoordinated team lifting or shifting weight to one party;
- lifting beyond capability;
- frequent or prolonged repetitive movements, such as stooping, twisting the trunk, stretching, twisting the wrist or neck;
- working hastily;
- insufficient rest or time to recover.

Tips for safe manual handling

■ The tasks

- ♦ use correct posture to lift or lower goods (please refer to Appendix);
- ♦ make use of mechanical aids, such as trolleys, conveyor belts or lifts to ease the handling of goods;



Making use of a bench top or a trolley of suitable height can reduce the need for bending.



Making use of mechanical aids can reduce the effort required during manual handling.

- ♦ work at the correct height. The height of workstations should allow most of the work to be performed at around elbow level. Using height-adjustable chairs can prevent stooping; using stable foot platforms can prevent reaching upwards;
- ♦ avoid repetitive handling of loads between delivery, storage and display; stock can be moved directly from delivery to display to reduce the need to handle stock repeatedly;
- ♦ arrange work distribution in team lifting correctly. Every member should obey the instructions of the team leader;
- ♦ store heavy or frequently used items in a position where they can be easily reached in shelf stocking. The optimum position is around waist height;



Reduce manual handling by using original product cartons for display purposes.

- ◆ improve the design of workstations and position frequently used materials in front of employees to reduce the need of twisting or stretching the body;
- ◆ do not stack goods too high during transportation to avoid blocking the front view, which will increase the risk of hitting objects or tripping;
- ◆ give employees a variety of tasks or provide them with sufficient recovery time to avoid prolonged repetitive movements;



Stacking goods too high will increase the risk of injury during transportation.

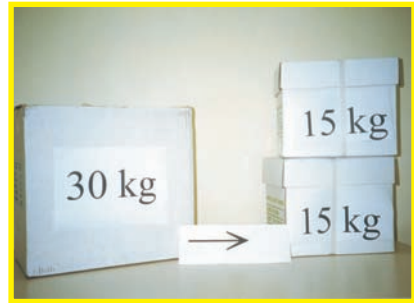


Pushing a number of trolleys simultaneously increases the potential for injury.

- ◆ working at an appropriate pace can relieve muscle strain and reduce the chance of hand and wrist injuries;
- ◆ do not push a number of trolleys simultaneously to reduce effort and difficulties in managing them;
- ◆ use automatic system to reduce the need for manual handling and make operations more efficient.

■ The loads

- ◆ make the goods lighter, change their size or shape, or make them easier to grasp by adding handholds or hand grips;
- ◆ make the goods less damaging to hold. Avoid sharp corners, jagged edges, and surfaces that are too hot, cold or rough;



Heavy loads can be divided into lighter packages.



Fitting handholds on containers is a very simple way of improving material handling.

- ◆ provide suitable protective gloves for handling goods that are difficult to hold;
- ◆ place the goods in stable position so that they will not shift unexpectedly while being handled;
- ◆ provide sufficient information on the goods, such as the weight and the heavier side.



Put the goods in stable position so that they will not shift unexpectedly while being handled.

■ The working environment

- ◆ provide sufficient space for manoeuvring in manual handling;
- ◆ keep the transport routes clear of obstructions, spilled water, oil or slippery substances which increase the likelihood of slips, trips and falls;
- ◆ improve uneven or unstable floors;
- ◆ if prolonged standing is required, place a shock absorbent mat on the floor to mitigate leg muscle fatigue, or if possible provide a high chair for employees so that they can sit down to work;



Keeping the transport routes clear of obstructions and providing sufficient space help employees to use trolleys for manual handling.



Proper personal protective clothing should be used if manual handling is carried out in a cold store.

- ◆ maintain temperature and humidity at a satisfactory level in the workplace. If manual handling is performed in a cold area, proper personal protective clothing should be provided and used;
- ◆ provide adequate ventilation. Beware of strong winds and powerful ventilation systems which may make handling of large loads unsafe;
- ◆ provide sufficient lighting to reduce the risk of hitting objects and tripping.

■ Individual capability

- ◆ assess the physique of employees and assign them with suitable manual handling operations based on their capabilities;
- ◆ provide employees with health and safety training so that manual handling operations can be safely performed.



Health and safety training should be provided to employees.

■ Other matters

- ◆ avoid wearing clothes that are too tight and provide well-fitted personal protective equipment which will not affect correct posture and movement;
- ◆ ensure that mechanical aids such as trolley wheels are regularly maintained and repaired to reduce the effort required during use.



Poorly maintained trolley wheels require greater effort to operate.

Further information

For further information or assistance, please contact the Occupational Safety and Health Branch of the Labour Department through:

Address: 15/F., Harbour Building, 38 Pier Road, Central

Telephone: 2852 4041

Fax: 2581 2049

E-mail: enquiry@labour.gov.hk

Information on the services offered by the Labour Department and on major labour legislation can also be found by visiting our Home Page on the Internet. Address of our Home Page is <http://www.labour.gov.hk>.

Information on the services provided by the Occupational Safety & Health Council can be obtained through their hotline 2739 9000.

Occupational safety and health complaint hotline:

If you have any complaint about unsafe workplaces and practices, please call the Labour Department's occupational safety and health complaint hotline at 2542 2172.

Appendix

Correct Lifting Method in General

■ Think First

- ◆ work out a safe carrying procedure according to the size, shape and weight of the object ;
- ◆ clear corridor or passageway of obstructions;
- ◆ use appropriate personal protective equipment;
- ◆ use mechanical aids or get help if there is any doubt.



Use mechanical aids or get help if there is any doubt.



Work out a safe carrying procedure according to the size, shape and weight of the object.

■ Use Correct Lifting Posture



1. Start close to the object.



2. Bend knees, squat down, straddle the load and keep back straight.



3. Grasp object firmly. Ensure that your grip will not slip.



4. Hold object close to body, lift with legs - slowly straighten the legs. After legs are straight bring the back to a vertical position.



5. Always lift smoothly. Avoid jerky motions. Turn with feet and never twist the back.



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