

### High-risk Work Practice

- ▲ Conveying loads in awkward shapes, big, unwieldy or unstable loads



- ▲ Conveying loads on an unstable surface



- ▲ Over-stretching while conveying, i.e. lifting from below mid-thigh or to above shoulder height



- ▲ Conveying loads which are too heavy and beyond a worker's capacity



- ▲ Repetitive and/or long duration of conveyance work



- ▲ Insecure grip and poor lifting position with feet too close together while conveying



- ▲ Carrying objects away from the body



- ▲ Twisting movements while conveying



- ▲ Obstructed pathway



### How heavy can an employee lift?

Generally speaking, lifting bulky objects will increase the chance of injuries. Employers should carry out risk assessments for manual handling operations with potential hazards, ensuring that employees have the strength required for lifting the heavy loads. Employers should provide mechanical aids and protective devices to minimise the chance of employees sustaining injuries in handling heavier loads. Employers should, if reasonably practicable, arrange a team of trained staff for team lifting under supervision and with assistance.

Moreover, special attention is required for repetitive conveyance work, employees in unsound health condition and lifting from unusual positions.



### Enquiries

If you wish to enquire about this leaflet or require advice on occupational safety and health matters, please contact the Occupational Safety and Health Branch of the Labour Department through:

Telephone : 2559 2297  
(auto-recording service available outside office hours)

Fax : 2915 1410

E-mail : enquiry@labour.gov.hk

Information on the services offered by the Labour Department and on major labour legislation is also available on our website at <http://www.labour.gov.hk>.

For details on the services offered by the Occupational Safety and Health Council, please call 2739 9000.

### Complaints

If you have any complaints about unsafe workplaces and work practice, please call the Labour Department's occupational safety and health complaint hotline at 2542 2172. All complaints will be treated in the strictest confidence.

# An Employee's Guide to Manual Handling Operation





The Occupational Safety and Health Regulation requires that all employers, the person responsible for a workplace and employees have to adopt safety measures to avoid bodily injuries caused by manual handling operations. Besides, the Occupational Safety and Health Ordinance further requires that all employers have to protect employees' safety and health while employees should also take care of their own and other people's safety and health and cooperate with employers.

An employee who fails to comply with the Occupational Safety and Health Ordinance or Occupational Safety and Health Regulation is, subject to the seriousness of the offence, liable on conviction to a fine of up to \$50,000 and six months' imprisonment.

### Avoid Musculoskeletal Injuries Caused by Manual Handling Operations

Hong Kong has as many as several thousand cases of occupational injuries caused by manual handling operations (hereafter referred to as "conveyance / conveyance work") a year. The loss involved in these injury cases, which includes working hours and compensation for work-related injuries, has imposed a heavy burden on the employers, employees and society.

Most cases of the musculoskeletal injuries are attributable to poor workplace design, inappropriate way of conveyance and inadequate training. In fact, all these factors can be controlled and the majority of the musculoskeletal injury cases can therefore be avoided.

### Employee Obligations

Employees should follow instructions and act in a way that does not place their own or any other person's health and safety at risk. All employees must make sure that wherever possible:

- appropriate methods of work and work procedures are followed
- mechanical aids and protective devices provided by employers are used
- where mechanical aids are not provided or practical, team lifting procedures are adopted
- conveyance training is received and the principles learned are applied in the workplace

### About Conveyance Work

Injuries caused by improper arrangement of conveyance work may result in physical disability and incalculable loss of money.

Proper lifting, moving and conveyance techniques should be adopted when carrying out conveyance work. Sudden accelerations or jerky movements are to be avoided.



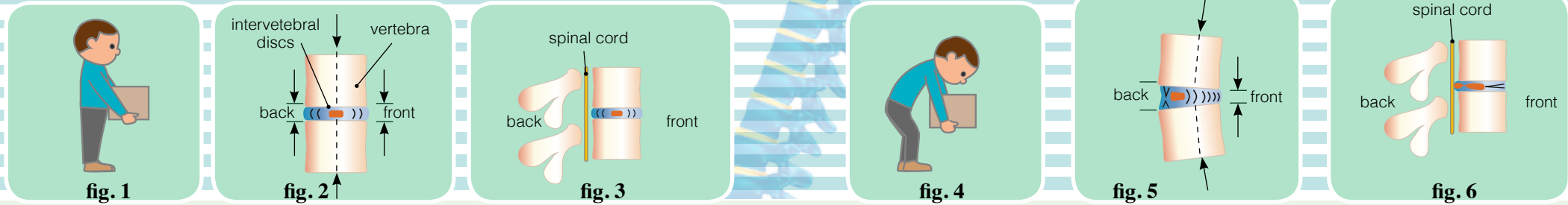
### Know Your Back – Spine

The spine has its natural curvature. When the spine's natural curvature is well preserved, the body weight can be evenly distributed on the spine and intervertebral discs and the chance of back injury could be minimised. When the upper part of the body makes a substantial bend or twist, it will rely upon the spine to lift the load. The waist (lumbar vertebrae) will then have to sustain the weight of the load, putting stress on the intervertebral discs. Most of the injuries of intervertebral discs occur at the lowest three discs, as

movement of this part of the spine is the biggest and it will sustain the greatest stress.

Lifting loads with improper lifting posture (Fig. 4) changes the natural curvature of the spine, which may sprain or tear the muscles and ligaments, and even leads to the protrusion of intervertebral discs, thus compressing the spinal cord or spinal nerves and causing pain or numbness and so on (as shown in Fig. 5 and Fig. 6).

Fig.1 Maintain natural curvature of spinal. Fig. 2 & Fig. 3 are the side view of a normal intervertebral disc



### How to Lift Low-lying Objects Safely

A well-designed workplace and the use of mechanical lifting aids are the better solutions to conveyance work.

If manual conveyance operations are inevitable and lifting low-lying objects is necessary, it is essential to comply with the safety principles for conveyance work to reduce the risks of back injuries.

#### Step 1

Make sure your pathway is unobstructed.



#### Step 2

Size up the weight, size and shape of the load, and consider whether your physical strength is adequate to convey the load. Use mechanical lifting aids as far as possible and ask colleagues for assistance if necessary. Avoid lifting overweight loads.



#### Step 3

Keep the legs apart for a balanced posture and stand as close to the load as possible.



#### Step 4

Bend your knees into a semi-squat posture. Keep your back straight. Grasp the load firmly with both hands and hold it close to your body.



#### Step 5

Lift with thigh muscles as you stand up. Lift the load smoothly and rhythmically. Avoid sudden or jerky body movements.



#### Step 6

Walk towards the conveyance direction with the load placed properly in your arms and hands. Do not twist your arms or shoulders.



#### Step 7

Setting the load down is just as important as lifting it up. Use your thigh muscles to bend your knees in a semi-squat to an angle that you feel comfortable and then put down the load. Do not let go the load before it is properly laid down.



**Corrigendum to An Employee's Guide to Manual Handling Operation**  
**(Year 2016 edition)**  
**(18 September 2023)**

<b>Item</b>	<b>Page</b>	<b>Current Version</b>	<b>Amendment</b>
1	1	An employee who fails to comply with the Occupational Safety and Health Ordinance or Occupational Safety and Health Regulation is, subject to the seriousness of the offence, liable on conviction to a fine of up to \$50,000 and six months' imprisonment.	An employee who fails to comply with the Occupational Safety and Health Ordinance or Occupational Safety and Health Regulation is, subject to the seriousness of the offence, liable on conviction to a fine of up to \$150,000 and six months' imprisonment.

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