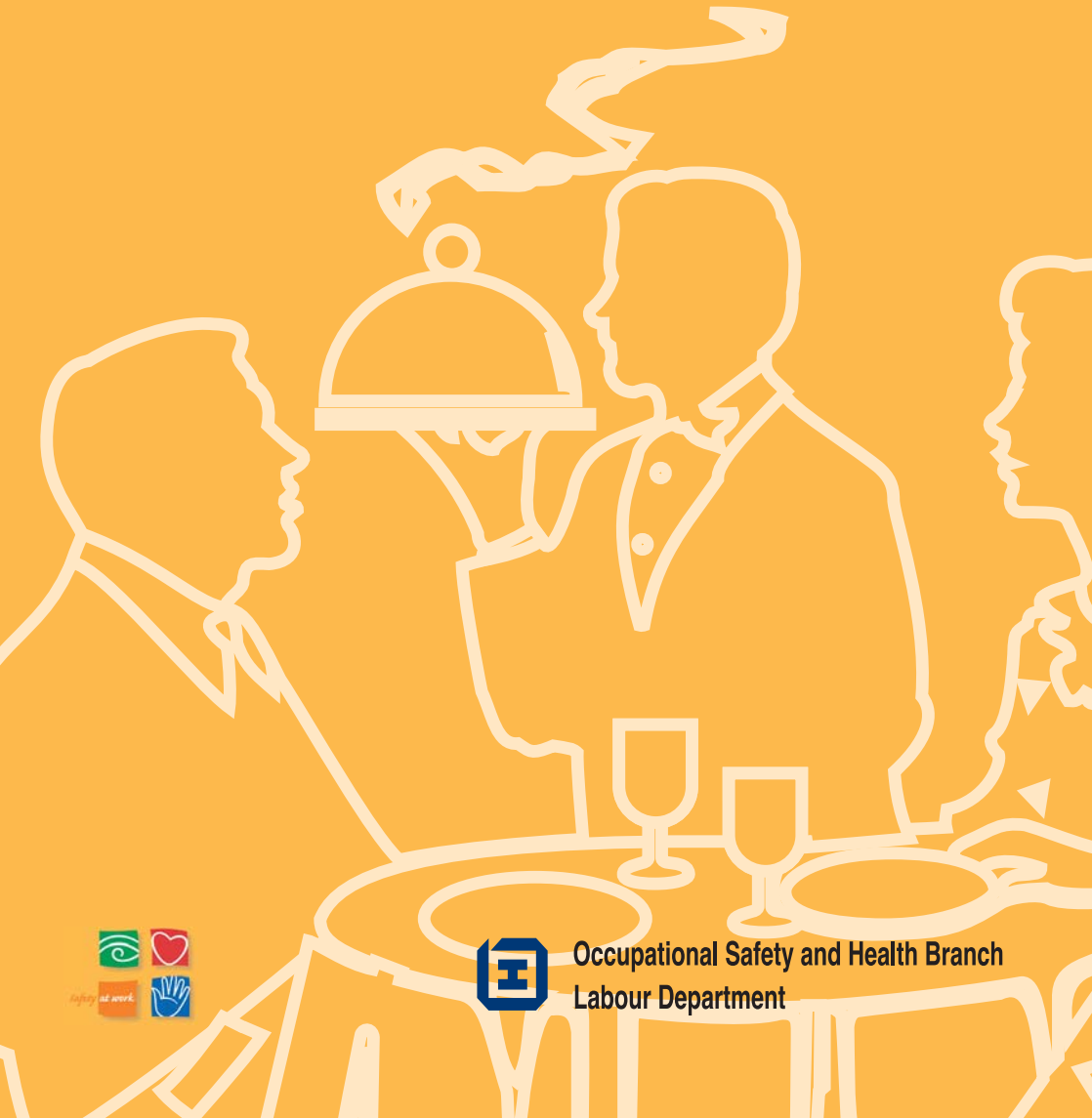


Catering Industry

# Hints on Prevention of Musculoskeletal Disorders



Occupational Safety and Health Branch  
Labour Department

This Booklet is prepared by  
the Occupational Safety and Health Branch, Labour Department

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# 1. Introduction

Catering industry is one of the major industries in Hong Kong. Catering workers, such as chefs and waiters, face a range of health and safety hazards specific to their respective tasks. Whilst slips, trips and falls are the main causes of injuries, there are many other hazards such as those relating to lifting and carrying of heavy objects, high temperatures, use of chemicals and equipment such as knives, food slicers, etc.

Restaurant work is usually physically demanding and restaurant workers may develop symptoms of various musculoskeletal disorders (MSDs) such as in the upper limbs, lower limbs, neck and back. Workplace risk factors of MSDs include improper manual handling of loads, improper working postures and awkward movements, prolonged repetitive movements, forceful hand exertions, improper workstations, prolonged standing, unsuitable tools and equipment, and inappropriate pace of work and time patterns. Common MSDs affecting restaurant workers include strains and sprains of different body parts, tenosynovitis of hand and forearm, plantar fasciitis and degenerative joint diseases.

This booklet illustrates a number of tasks in the catering industry which may result in MSDs and provides practical solutions. It aims at assisting employers and employees in preventing MSDs and consequent economic loss, and fulfilling their legal responsibilities in occupational health.



## 2. Roles of Employers & Employees

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Under the Occupational Safety and Health Ordinance & the Factories and Industrial Undertakings Ordinance, employers/proprietors must fulfil their general duties of care, i.e. to ensure the safety and health at work of all their employees, so far as reasonably practicable, including to:

- provide and maintain plant and systems of work that are safe and without risks to health;
- make arrangements for ensuring safety and absence of risks to health in connection with the use, handling, storage or transport of plant or substances;
- provide information, instruction, training and supervision as may be necessary to ensure the safety and health of the employees at work;
- maintain every part of the workplace including the means of access to and egress from the workplace in a condition that is safe and without risks to health; and
- provide and maintain workplace and working environment that are safe and without risks to health.

On the other hand, employees must, so far as reasonably practicable, take care of the safety and health of themselves and of other persons who are at the workplace. They must also co-operate with their employers/proprietors so far as may be necessary to enable safety and health requirements to be complied with.

For further information, please refer to ‘A Brief Guide to the Occupational Safety and Health Ordinance’ and ‘Know Your General Duties’.

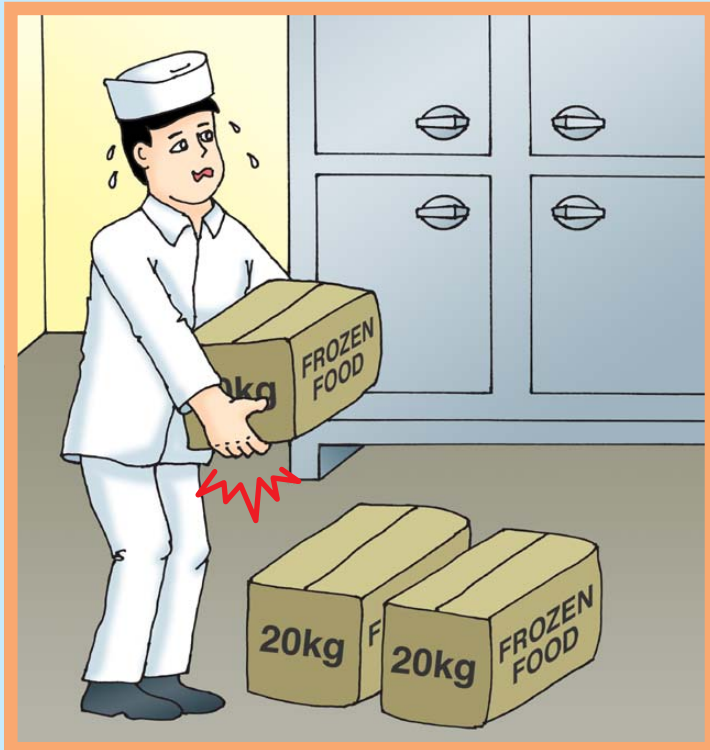
Furthermore, in case manual handling operations are carried out by employees, the person responsible for the workplace must comply with Part VII of the Occupational Safety and Health Regulation, which includes performing risk assessments and implementing necessary preventive and protective measures to reduce the identified risks. Detailed information is provided in ‘Guidance Notes on Manual Handling Operations’ and ‘A Guide to Part VII of the Occupational Safety and Health Regulation (Manual Handling Operations)’.

### 3. Examples of Tasks which may cause MSD

#### 1. Manual handling of heavy items

##### Risky Task

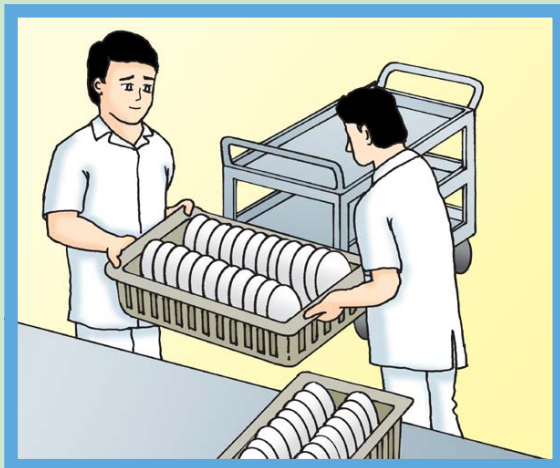
- Forceful lifting or transferring of heavy bags of foodstuff.



# 1. Manual handling of heavy items

## Solution

- Practise team lifting.



- Use trolleys/carts to transfer heavy objects.



## 1. Manual handling of heavy items

### Risky Task

- Over-stretching of arms in fetching bulky and heavy items from upper shelves.





## 1. Manual handling of heavy items

### Solution

- Store heavy items (e.g. bulky products such as bags of potatoes and flour) between the shoulder and knuckle heights and use mechanical devices to transfer products.
- Store infrequently used lighter items on upper shelves.
- Use tools such as step / ladder to avoid over-stretching of arms.



# 1. Manual handling of heavy items

## Risky Task

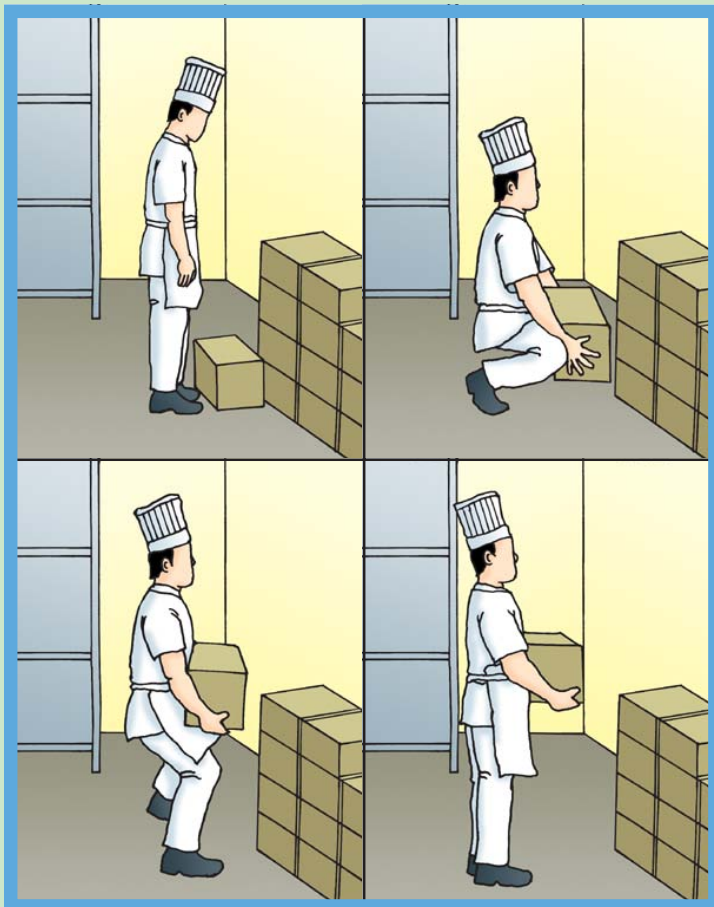
- Incorrect posture in lifting heavy items.



## 1. Manual handling of heavy items

### Solution

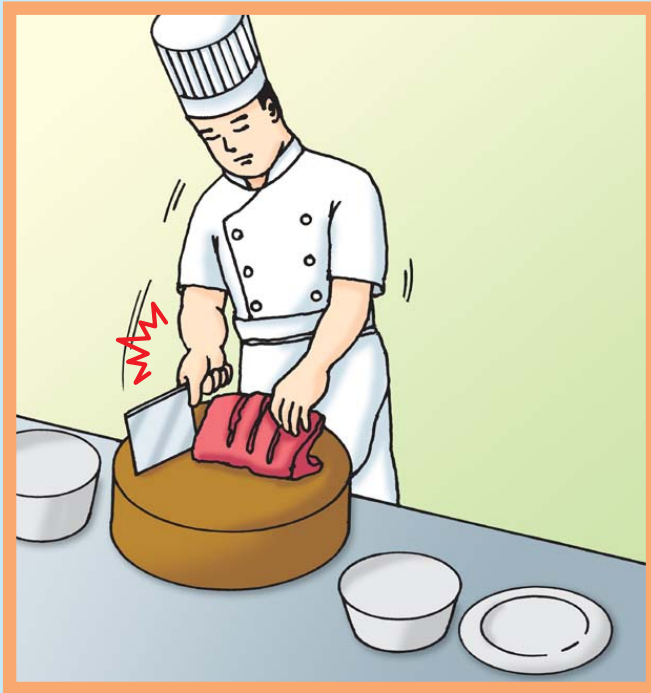
- Provide training to staff on proper manual lifting techniques.



## 2. Chopping and cutting of food

### Risky Task

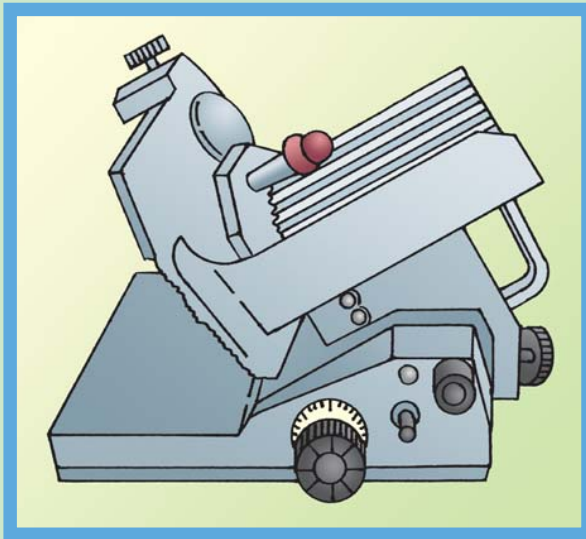
- Use of excess force in chopping food.
- Repetitive actions of the forearm and/or the wrist in chopping / cutting food.
- Use of unsuitable tools/equipment, e.g. blunt knife.



## 2. Chopping and cutting of food

### Solution

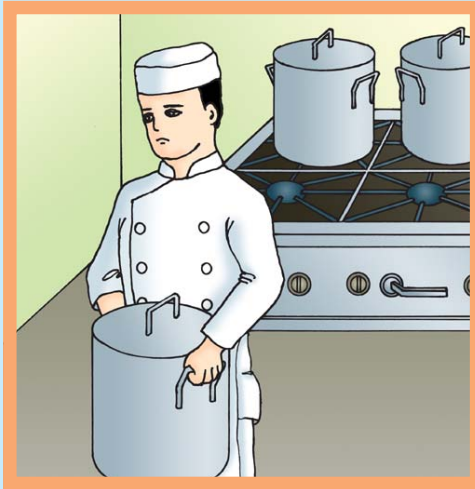
- Use a sharp chopper/knife.
- Use power-operated cutters or slicers to reduce the need of manual chopping and cutting of food.
- Defrost foodstuff before chopping/cutting.
- Arrange job rotation among kitchen staff.



### 3. Handling of hot and heavy objects

#### Risky Task

- Handling heavy and hot objects, particularly if it contains liquid which will move and change the centre of gravity of the object.



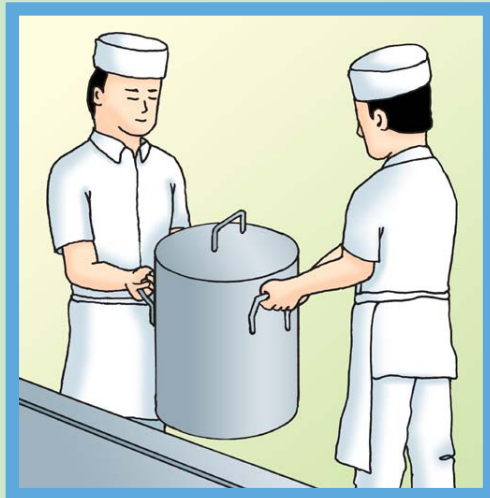
### 3. Handling of hot and heavy objects

#### Solution

- Avoid handling by placing the pot on the stove first and then filling in materials and water.



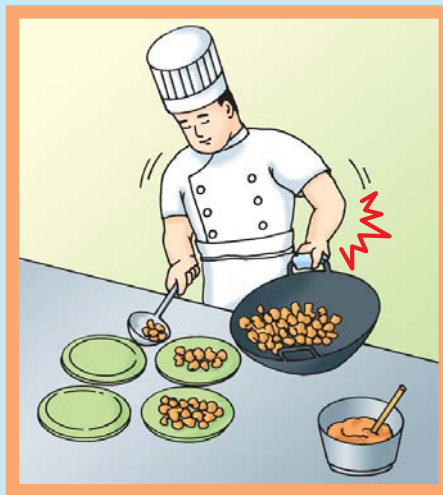
- Reduce the weight by using a smaller pot or adding less materials/water in one go.
- Use a trolley.
- Practise team lifting.



## 4. Wok flipping during stir frying

### Risky Task

- Fast and repetitive hand, arm and wrist movements in flipping the wok and tossing the ingredients.

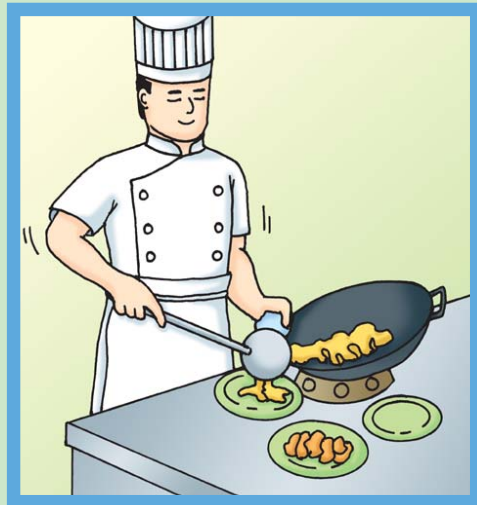
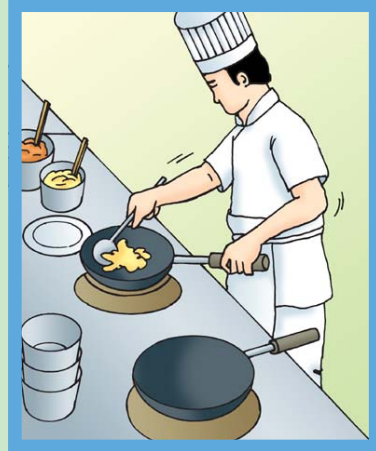




## 4. Wok flipping during stir frying

### Solution

- Use a lighter/smaller wok to reduce the load.
- Limit the amount of dishes cooked in a wok at one time.
- Use woks with well-designed handles for better gripping.
- Use the stove or other material to support the wok to reduce the risk of injury.
- Use spatulas with suitable length.
- Use holders to hold the wok when distributing its contents to dishes.



## 5. Preparation of dim sum

### Risky Task

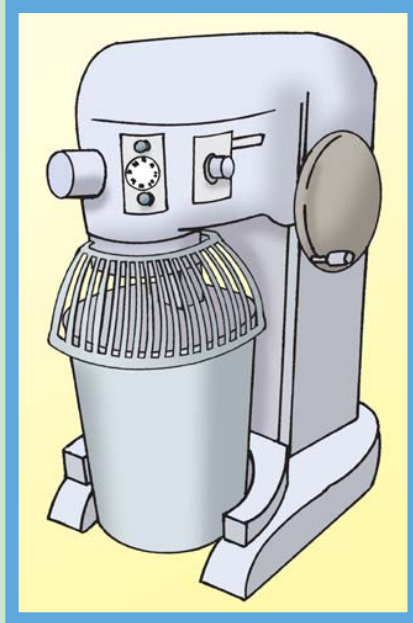
- Forceful exertion of hands when preparing a large dough for dim sum.



## 5. Preparation of dim sum

### Solution

- Use a food mixer for preparing a large dough and stuffing.



## 5. Preparation of dim sum

### Risky Task

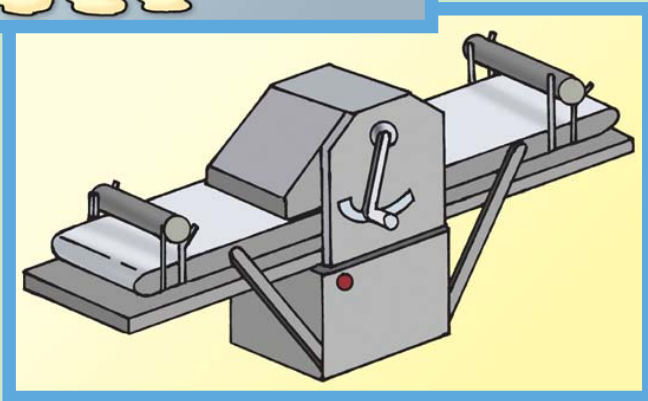
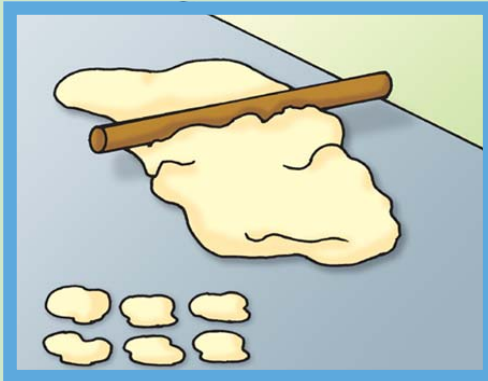
- Preparation of dumpling wrappers by hand-pressing small doughs.
- Prolonged repetitive actions in making dim sum.



## 5. Preparation of dim sum

### Solution

- Use dough sheeters and/or rolling pins to flatten a large dough.



- Arrange job rotation among kitchen staff.

## 6. Serving of Dishes

### Risky Task

- Overexertion in handling overloaded serving trays.
- Serve dishes with one hand only.



- Over-stretching of the body or stooping in serving dishes at the table.



## 6. Serving of Dishes

### Solution

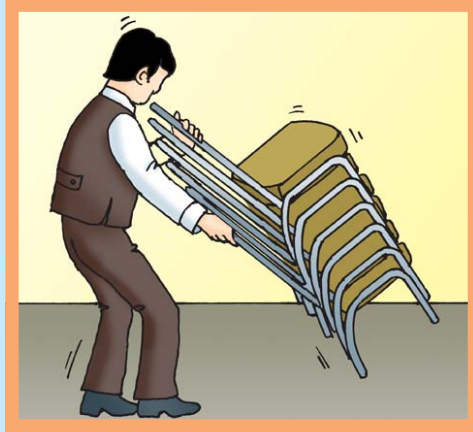
- Reduce the weight of dishes.
- Assign sufficient staff to serve a table in order to reduce the number of plates/amount of food carried at one time.
- Control the weight of a tray of dishes and keep plates within the tray.
- Reduce the handling distance by using a trolley, or handle the dishes by both hands.
- Place dishes on the side of a turntable before putting them to the middle.
- Distribute food to bowls at the trolley/erving table adjacent to the dining table before serving.



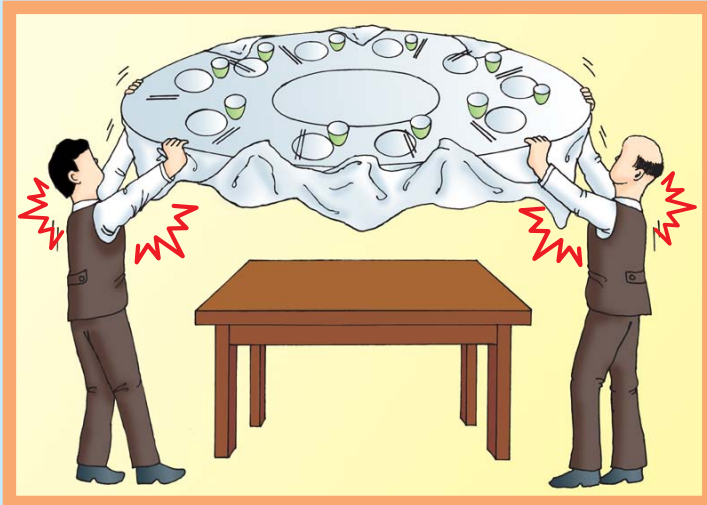
## 7. Lifting and transferring of chairs/tables

### Risky Task

- Repetitive manual lifting and moving of piles of chairs.



- Transferring table tops with tablewares at above-head level.





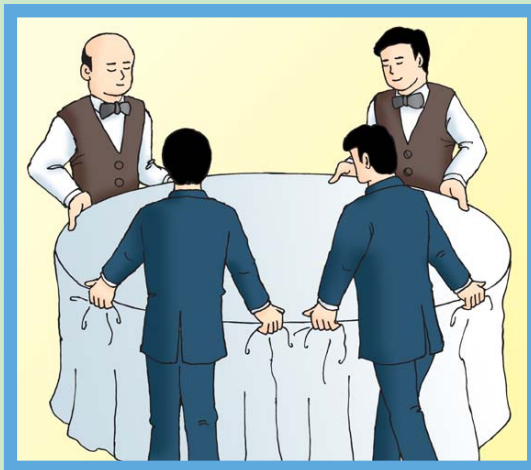
## 7. Lifting and transferring of chairs/tables

### Solution

- Use a proper trolley to move a pile of chairs.



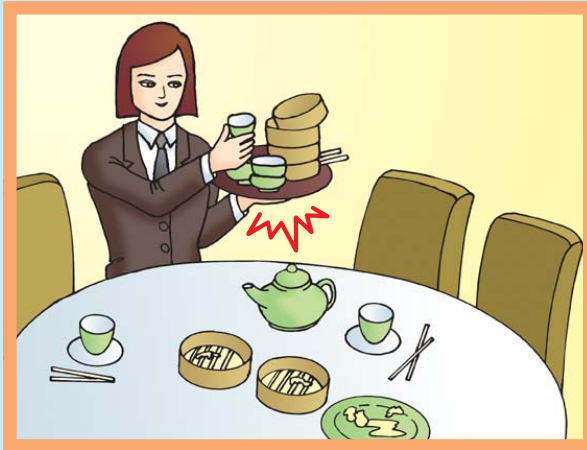
- Avoid over-stretching in transferring table tops by practising team-working approach.



## 8. Collection and handling of dishes

### Risky Task

- Handling overloaded trays of dishes.
- Collecting overloaded trays without mechanical aids.



## 8. Collection and handling of dishes

### Solution

- Use suitable trolleys to move large quantities of dishes.



- Use smaller containers with handles.



## 9. Cleansing of Dishes

### Risky Task

- Stoop during cleansing dishes in a deep sink.
- Standing for prolonged periods in cleansing dishes.



- Sitting on a stool for too long while cleansing dishes placed in a basin on the floor.



## 9. Cleansing of Dishes

### Solution

- Avoid stooping by using a sink of suitable height and depth.

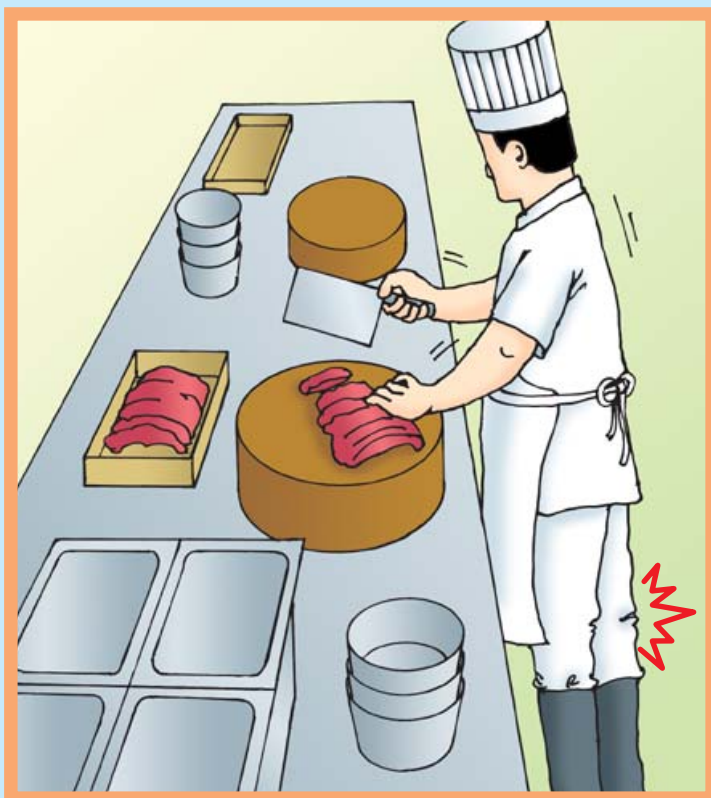


- Use false bottoms in deep sinks to reduce awkward bending at the waist.
- Reduce prolonged standing and rest the legs alternately on a foot rail or a step to reduce stress on the lower back and legs by shifting body weight when standing.
- Use cleaning tools with good grips when heavy duty cleaning is performed.

## 10. Prolonged standing or sitting

### Risky Task

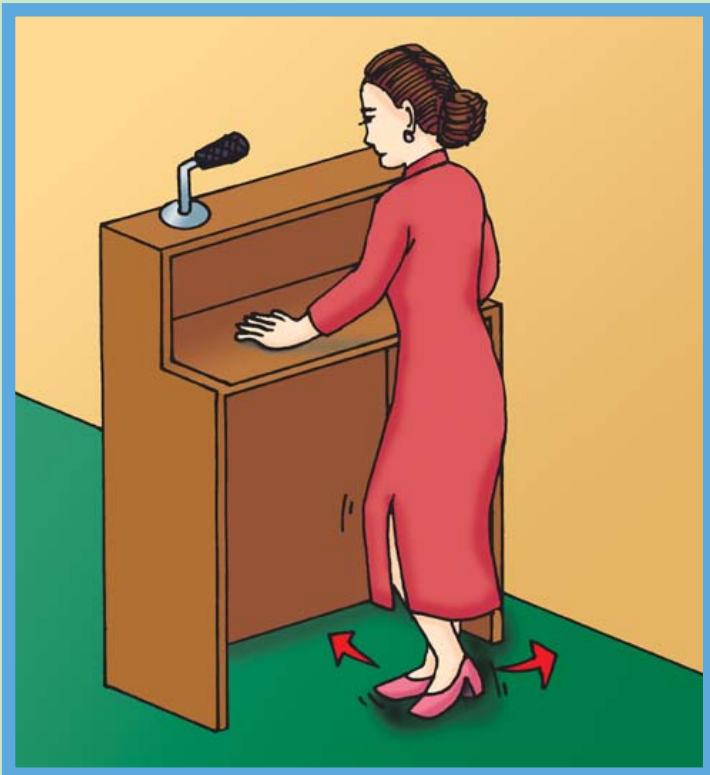
- Receptionists, chefs, waiters and bar-tenders standing for a prolonged period of time during work.
- Cashiers sitting for a prolonged period of time during work.



## 10. Prolonged standing or sitting

### Solution

- Sit for a while or perform some lower limb exercises after prolonged standing.
- Move around after prolonged sitting.
- Shift your weight from one leg to the other from time to time, or rest your legs alternately on a stool.

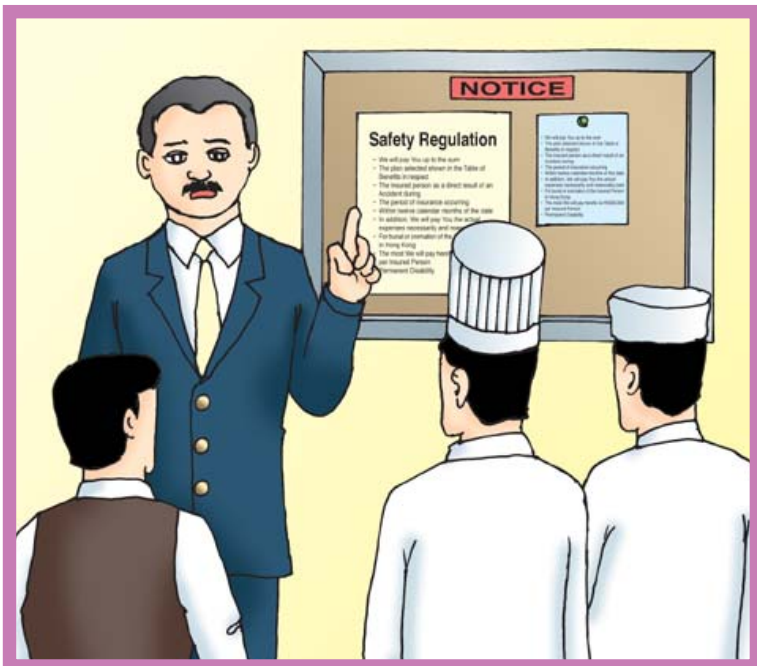


## 4. Conclusion

This publication illustrates some examples of tasks in the catering industry which may result in MSD. In fact, the following principles should be applied in the prevention of MSD when carrying out different tasks:

- Avoid quick and repetitive movements for a prolonged period of time;
- Work in proper and comfortable postures;
- Reduce forceful exertion at work;
- Use suitable workstations, tools and equipment.

In addition, employers should provide information, instruction, training and supervision for their employees to ensure that they understand the associated occupational health hazards and respective preventive measures.





## 5. Further Information

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