

Office Safety & Health

Occupational Safety and Health in the Office

Hong Kong has been undergoing intense transformation in the economic structure. There is on the one hand a decreasing proportion of workers engaged in the industrial activities. On the other hand, the percentage of office employees is growing among the working population. Though normally an office environment is relatively comfortable when compared with the traditional nature of work in an industrial undertaking or a construction site, it is not entirely freed from safety and health risks. Occupational injuries and ill health do occur in offices. This booklet addresses the major safety and health issues in an office environment.



Occupational safety and health issues in offices are presented as follows:

- Occupational Safety and Health Ordinance
- Occupational Safety and Health Regulation
- Design of Office Workstations
- Work Posture
- Proper Use of Display Screen Equipment
- Office Lighting
- Indoor Air Quality
- General Office Safety
- Office Equipment
- Fire and Fire Escape Route
- Electrical Safety
- Manual Handling Operations
- Occupational Stress
- Office Relaxation Exercise



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Design of Office Workstations

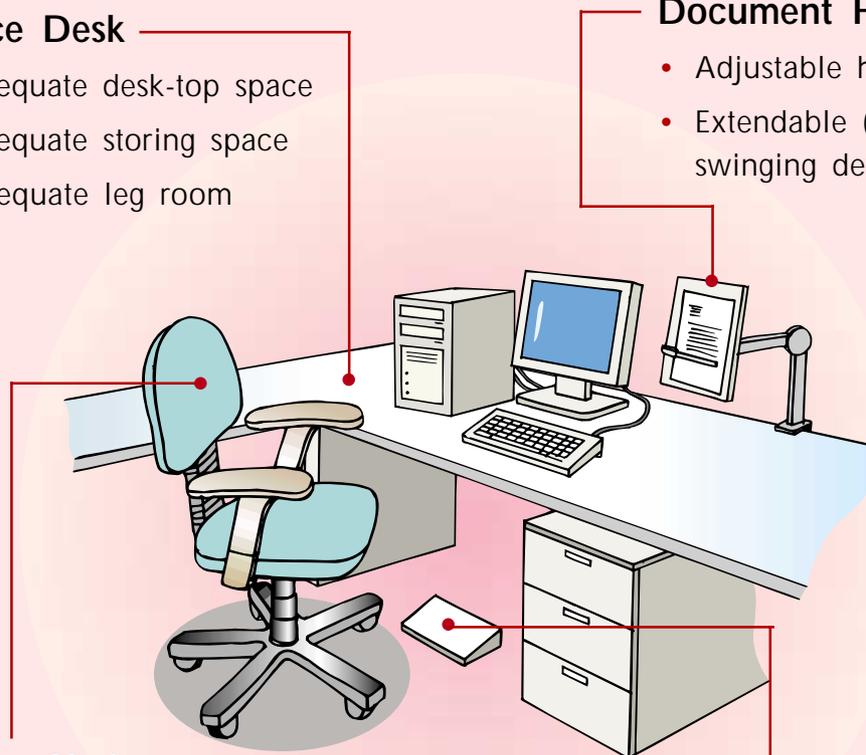
Ergonomic principles should be observed when designing an office workstation to accommodate the body features and limitations of the user.

Office Desk

- Adequate desk-top space
- Adequate storing space
- Adequate leg room

Document Holder

- Adjustable height and tilt
- Extendable (better if with swinging device)



Office Chair

- Base with five castors
- Seat pan with adjustable height and tilt
- Backrest with adjustable height and tilt
- Easy to adjust, even from a seated position
- Revolving seat
- Round seat edge
- Appropriate armrests (better if adjustable)

Footrest

- Adjustable height and tilt
- Non-skid surface, able to support the feet
- Stable



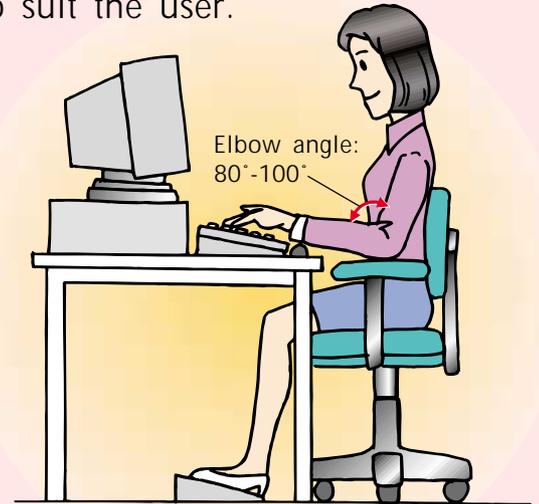
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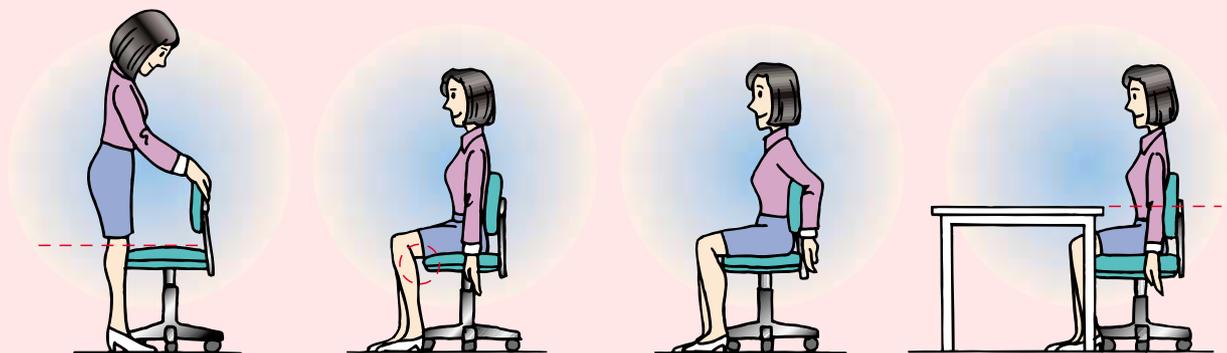
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Work Posture

- Adjust the chair, desk and equipment to suit the user.
- Lower your head slightly by 10 to 20 degrees during work.
- Keep your back straight and rest it fully on the backrest.
- Keep your elbows at an angle between 80-100 degrees, rest your arms on the armrests.
- Operate the keyboard softly.
- Use a footrest, if the employee's feet do not rest fully on the floor.
- Change sitting position intermittently to relieve strain.



Adjusting an office chair



- 1** The highest point of the seat should be below your knees.
- 2** Maintain a gap between the front edge of the seat and the back of the legs and knees.
- 3** The backrest should firmly support the back.
- 4** Adjust the seat to a height where the forearm forms a straight line with the desk when resting on the desk top.



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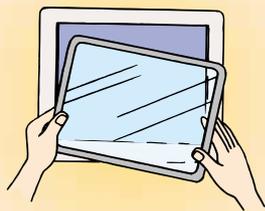


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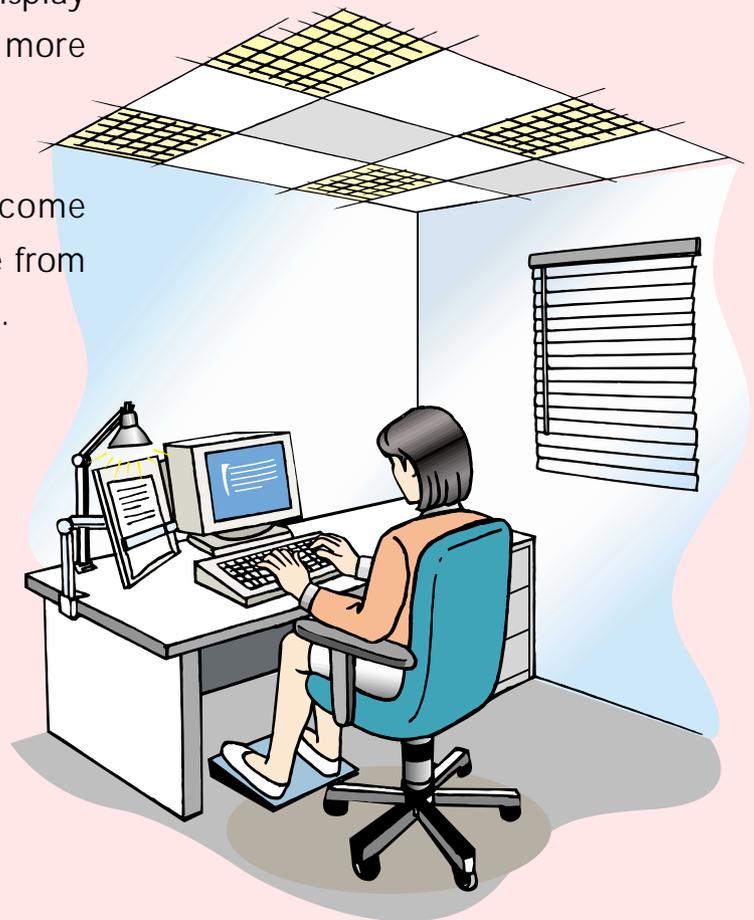
Proper Use of Display Screen Equipment

Prolonged use of display screen equipment can cause muscular tension and joint pain, fatigue, eyestrain and blurry eyesight.

- Use an anti-glare filter to prevent reflective light
- Maintain a distance of 350-600mm between the eyes and the display screen
- Look down slightly on the display screen at an angle of not more than 20°
- The light source should come from the top. To avoid glare from windows, lower the blinds.
- Take activity breaks in a prolonged period of work that causes fatigue and eyestrain.
- Do some relaxation exercises for your hands, shoulders, neck and back when required.



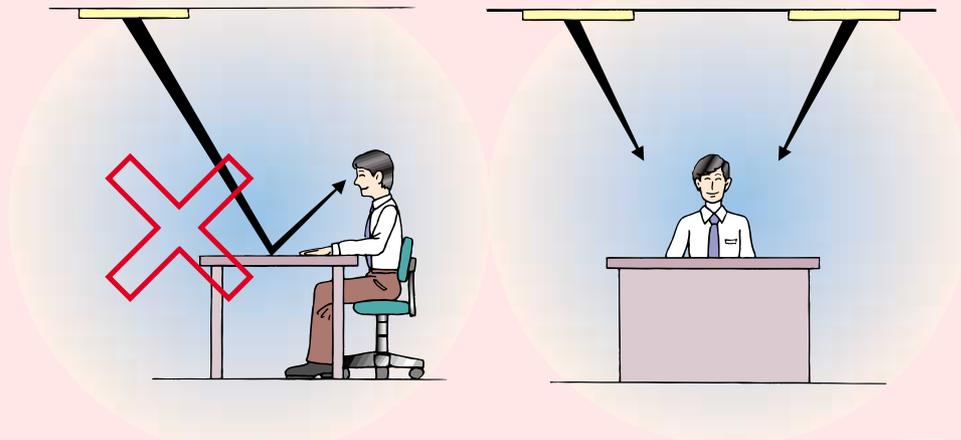
Anti-glare Filter



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Office Lighting

Proper lighting attributes to elements such as brightness, contrast, light distribution and steadiness. Usually, the brightness of office lighting ranges from 300-500 lux.



- Surface of the desktop should be light in colour and non-reflective.
- Computer display screen should be perpendicular to the light from windows and the light source in order to avoid screen reflection. If necessary, use a screen filter to reduce the reflection and improve the visual quality.
- For tasks requiring higher illuminance levels, provide local lighting.
- Blinds and light diffusers are effective means of controlling glare and distribution of light.



Install adjustable table lamp to provide local lighting.



Using overhead light source is a good way to control glare and shadow.



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Indoor Air Quality

Nowadays most offices are located in tightly sealed buildings, which are centrally air-conditioned. Air pollutants can be generated from inside of the building or brought in from outside. If the design, operation and maintenance of the air-conditioning system are improper, pollutants would be accumulated indoors. These pollutants include chemical and microbiological substances such as:

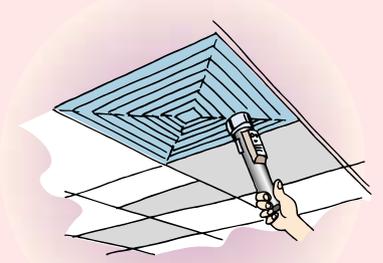
- Volatile organic compounds from correction fluid and detergent.
- Ozone produced by photocopiers.
- Formaldehyde diffused from office furniture and carpet.
- Smoke generated by tobacco smoking.
- Stale air drawn in from outside through poorly located fresh air inlets.
- Bacteria that enter the office or accumulate in the ventilation system as a result of poor maintenance.



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Improving Indoor Air Quality

- Provide adequate fresh air, and ensure that locations of air inlets are away from any source of pollutants.
- Clean all air outlets and filters regularly.
- Use building materials, furniture and carpet with no or low emission of pollutants.
- Clean the carpet and furniture upholstery regularly.
- Install local temperature regulator to provide a more acceptable work environment.
- Implement a no-smoking policy.
- Maintain indoor temperature at 23-26°C (Summer) or 20-24°C (Winter) and the relative humidity at 40-70%.



Testing the level of dust and micro-organism in the air.



Clean the air outlets and filters regularly.



Clean the carpet and furniture upholstery regularly.



23-26°C (Summer)



20-24°C (Winter)



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General Office Safety

Office is not a completely safe workplace. Items like chairs, unwanted materials placed in the passageway, worn out carpets, storing shelves and office electrical appliances can cause serious accidents in an office environment.

- If the floor is wet and slippery, clean it immediately. Put up a warning notice while cleaning work is being done.



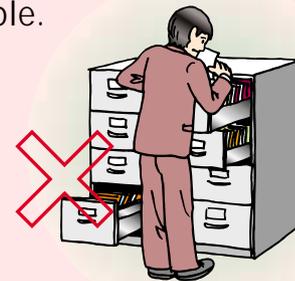
- Stick a label in an appropriate position on clear and shiny glass doors to avoid people bumping into them.



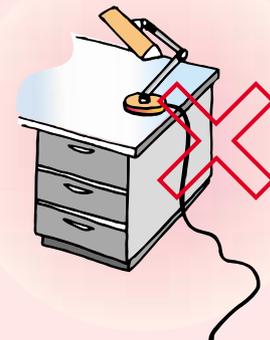
- Handle and store sharp objects carefully such as cutter, scissors and pins.



- Close drawers immediately after use to avoid tripping or contusing people.



- Fix and organize the wiring properly and keep them away from routes of access.



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Office Equipment

An office uses a variety of equipment. Users will expose themselves to hazards from misusing office equipment.

Photocopier

- The toner may contain hazardous substances. Handle it with care.
- Close the lid properly to prevent strong light from irritating the eyes.
- The photocopier should be placed in an area with good ventilation, allowing the ozone to disperse quickly.



Shredder

- Hair, clothing etc. can be caught by the shredder.
- Switch off the machine during repair and maintenance.

Cutter

- Use the cutter properly and carefully to avoid cutting the fingers.



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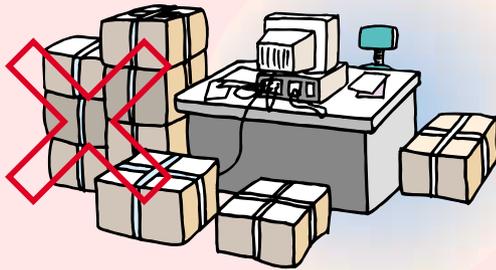
Fire and Fire Escape Route

The employer and the management team should ensure that employees understand all safety matters relating to fire prevention and the company's fire evacuation plan. Regular fire drills should be carried out.

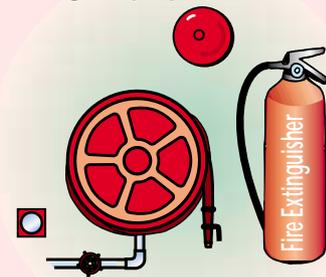


- Refrain from smoking. Always use an ashtray if one must smoke. Burning cigarettes should be kept away from paper and inflammable items. Extinguish all cigarettes butts before leaving.

- Keep inflammable items to a minimum.



- Do not damage fire-fighting equipment. Learn to use emergency fire-fighting equipment.



- Do not lock exit doors and block passageways. All exits should lead to an open and safe area.



- Get familiar with route of escape and the location of gathering point in case of fire.



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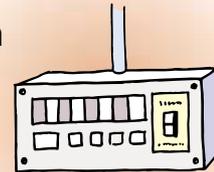
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Electrical Safety

Fire can be caused by electric shock, short-circuit or socket overload resulting in loss of life and property.

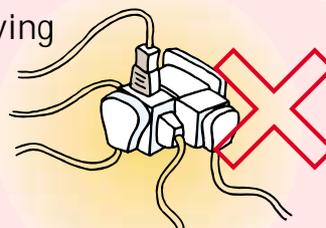
Prevention of electric fire

- Electrical installations, wiring, and repairs of electrical appliances must be carried out by a qualified and certified electrician.
- Provide grounding to all electrical appliances.
- Use electrical appliances equipped with double insulation design.
- Use electricity leakage circuit breaker.
- Avoid overloading sockets.



To prevent electric shock:

- Avoid operating electrical appliances in a humid environment.
- Do not repair or install electric implements without proper training.
- Switch off power supply before moving any electrical device.



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Manual Handling Operations

The Occupational Safety and Health Regulation requires the responsible person to identify the risks associated with manual handling operations at the workplace and evaluate such risks. Any manual handling operations that may create high risks of safety and health should be avoided. If the operations cannot be avoided, further assessments must be made of the risks and adequate protection, preventive measures and training must be provided to employees.

The following are guidelines for safe manual handling operations:

- 1** Stand close to the object; take a steady foothold; spread your legs.



- 2** Keep your back straight; bend your knees.



- 3** Hold the object firmly and ensure that it does not slip.



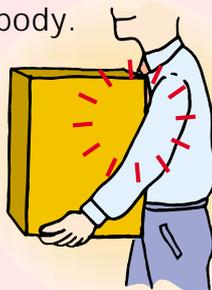
- 4** Breathe in. Inflated lungs help support your spine.



- 5** Stand up slowly until your legs are straight.



- 6** Hold the object firmly and keep it close to your body.



- 7** Your movement should be smooth. Do not turn your legs abruptly. Do not twist your back.



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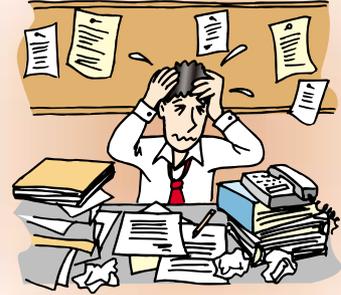


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Occupational Stress

Appropriate stress can increase employees' work efficiency and make them more alert. However, excessive stress may give rise to discomfort, emotional disturbance, anxiety, depression, decline in physical capabilities and productivity, and even health problems such as heart disease, ulcer and headache. Occupational stress can come from the work itself (too much work or insufficient work), the work environment (noise, chemicals etc.) and poor business management.



Ways to reduce job stress

- The management and employees should reach an agreement on an appropriate quantity of work
- Improve working environment
- Promote interpersonal relations among colleagues
- Upgrade incentive and award schemes
- Manage time
- Share feelings and ideas with friends and colleagues
- Learn to relax
- Beware of early symptoms of stress. If the stress is intolerable, seek for professional advice.



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Office Relaxation Exercise

Office relaxation exercises can help relieve muscle tension and improve blood circulation after prolonged sedentary work.



1 Stretching Exercise

Lock the fingers of both hands together. Stretch your arms vertically upward with your palms up.



2 Toes Exercise

Spread out your legs to the width of your shoulder with your heels touching the floor. Curl your toes inward and then flex them outward.



3 Shoulder Relaxation Exercise

Raise your shoulders and rotate them backward. Relax, then repeat in the opposite direction.



4 Side Bend Exercise

Lower your left shoulder toward the floor. Try to touch the floor with your fingertips. Return to the original position. Repeat with your right shoulder.



5 Leg Lifting Exercise

Sit upright and keep your back away from the backrest. Rest your feet on the floor. Lift your left leg until it is several inches off the floor. Hold for a moment. Return it to the original position. Repeat with your right leg.



6 Curling Exercise

Hold your lower leg. Curl your body forward as much as possible. Try to touch your knee with your nose.



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