



# Worksafe SmartMove Certificate

## Business and ICT Industry Module Study Guide



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# Business and ICT Industry

## Learning outcomes

In this module you will:

1. Learn about common hazards encountered in the business and ICT industry
2. Understand how to prevent injuries from common workplace hazards
3. Identify existing and potential hazards at a workplace and learn how to report and record them
4. Learn how to eliminate workplace hazards and control risks

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The business and information communication technology (ICT) industry includes jobs such as receptionist, telemarketer, clerical staff, IT technician, web designer, programmer, graphic designer and mobile developer. Although working in an office may not seem dangerous, you could be exposed to a range of hazards. Some jobs even require a worker to enter clients' premises.

Common hazards in the business and ICT industry are:

- manual tasks
- slips, trips and falls
- electricity hazards
- office environment
- working outside the office

## Manual tasks

*A young telemarketer suffered right shoulder stiffness, numbness of her lower right arm, and severe hand and neck pain after working in a call centre for one year. Since moving to a new workstation, she had not been able to find a comfortable sitting position. To make matters worse, her headset had recently broken. While waiting for her headset replacement, she continuously cradled her phone handpiece between her head and shoulder.*

*After consulting with her GP, the young telemarketer received numerous cortisone shots, which provided only temporary relief. During this time, she lost the full use of her arm and could not extend it.*

Manual tasks are any activity or sequence of activities that require a person to use their body (musculoskeletal system) physically to perform work.

Most jobs require several types of manual tasks to be performed. However, not all manual tasks are hazardous. The most common injuries and health issues that can arise from performing manual tasks are musculoskeletal injuries.

Examples of musculoskeletal injuries are:

- sprains and strains of muscles, ligaments and tendons (e.g. back strain)
- joint injuries
- disc protrusion or disc herniation of the back
- nerve injury or compression
- muscular and vascular disorders (e.g. carpal tunnel syndrome or repetitive strain injury)
- soft tissue injuries.

In the business and ICT industry, ergonomics and individual factors are common causes of musculoskeletal injuries among workers. Ergonomics is the designing of work tasks to fit an individual worker.

Individual factors include a worker's willingness to control risks that are relevant to their own situation, and their motivation to act appropriately in managing such risks.

## How does performing a manual task result in injury?

Contrary to popular belief, it's not just the weight of an object lifted that creates the risk of musculoskeletal injuries. Common hazardous manual tasks in the business and ICT industry include static posture, poor body, arm/hand position, improper mouse and keyboard use and prolonged sitting without adequate foot support at a workstation.

## What can your employer do to prevent injury from performing manual tasks?

Your employer has a responsibility to provide and maintain a safe workplace. If you are about to perform hazardous manual tasks and you are unsure how to go about it, ask your employer for assistance.

Your employer should provide an ergonomic assessment to new workers and to workers who are being located at a new workstation or whenever their tasks have changed.

## Examples of manual tasks that may be hazardous

### At your workstation - Ergonomics

Ergonomics is fitting the work environment to a person. A properly set up ergonomic workstation helps lessen muscle fatigue and reduces the number and severity of work-related musculoskeletal injuries.

#### *What should your employer do?*

- Provide you a desk that is big enough so you can reach all the things you need without overreaching or twisting.
- Provide you a supportive adjustable chair and other supportive tools and equipment (such as a mouse, keyboard, and display screen and footrest) for you to work safely.
- Make sure you are not doing repetitive work for long periods of time.
- Encourage you to take regular, short breaks.
- Provide you with information and training on how to use furniture, tools and equipment correctly.

#### *What can you do?*

- Understand the risks associated with hazardous manual tasks and find ways to minimise them. For example, a good computer set up should include:
  - top of screen at eye level
  - keyboard level with elbows
  - mouse close to keyboard
  - ergonomic posture
- Organise your workspace so you can easily reach everything.
- Adjust your chair and desk so you can maintain a recommended posture while using the computer and other equipment.
- Try and change your body position often. Perform stretches at regular intervals.
- Alternate computer work and other tasks.
- Make time for regular short breaks.
- Report broken furniture or equipment to your employer.

#### **Remember:**

*A proper ergonomic workstation set up helps lessen muscle fatigue and reduces the number and severity of work-related musculoskeletal injuries. Ask to have an ergonomic assessment of your workstation if you are new to the workstation or feel that the setup is not right for you.*

## Storing equipment

Office equipment, such as printers, computers and stationery can be bulky and heavy. To reduce risks of performing hazardous manual tasks, you should:

- learn how to carry bulky and heavy items safely
  - store items between mid-thigh and shoulder height
  - surround loose items with packing material so they do not shift in the box
  - make sure there is enough space in storerooms to handle items
  - use equipment (such as a trolley) to move heavy or bulky items
- 

## Quiz – Manual tasks

1. The most *common* health problems that can arise from hazardous manual tasks are:
    - a. musculoskeletal injuries
    - b. cold and flu
    - c. bone cancer
    - d. food allergies
  2. What types of injuries can result from performing manual tasks?
    - a. Nerve injury or compression
    - b. Muscular and vascular disorders
    - c. Sprains and strains of muscles, ligaments and tendons
    - d. All of the above
  3. Changing your body position often, stretching at regular intervals and taking breaks while at a workstation will help you \_\_\_\_\_.
    - a. lose weight
    - b. prevent musculoskeletal injuries
    - c. meet work deadlines
    - d. update social media posts
  4. If you are unable to find a comfortable position at your workstation, you should ask your employer for an ergonomic assessment of your workstation.
    - a. True
    - b. False
- 

## Slips, trips and falls

*A teenager working in an office tore the ligaments in her right knee after slipping at work. A colleague had spilled some coffee in the kitchen and the teenager stepped in the puddle. She required surgery to repair the damage to her knee.*

Slips, trips and falls are common cause of injury in the business and ICT industry. They can result in serious harm and lengthy time off work. These types of injuries can also affect young workers in their everyday social and school lives and may mean they cannot play sport or engage in physical activities or hobbies.

Slips, trips or falls may cause injuries, including:

- broken bones when colliding with an object or hitting the ground
- cuts if it occurs near sharp objects
- sprains or strains.

## What cause slips, trips and falls?

Common causes include:

- slippery floor from water or liquid spills
- wearing unsuitable shoes
- unstable, loose, or uneven surfaces like broken tiles or torn carpet
- steps and different floor levels
- poor lighting
- loose cords on the floor from electrical equipment, such as computers, printers and shredders
- clutter, such as piles of paperwork, left in walkways.

## What can your employer do to prevent slips, trips and falls?

Your employer should:

- allow for safe movement in the workplace, including entries and exits that are free of obstructions
- ensure floors and surfaces in the workplace are well maintained and installed with task appropriate surfaces
- provide adequate lighting for safe movement
- ensure sufficient space to work
- keep office floors tidy and clear of clutter
- provide tools and equipment for you to work safely
- ensure workers wear suitable footwear

## How can you prevent slips, trips and falls at work?

- Wear suitable shoes with treads that are kept clean – incorrect footwear can cause slips and trips.
- Clean up spillages straight away and dry the floor to ensure the surface is not left wet – don't leave spills for someone else to clean up.
- Keep walkways clear of obstacles especially during busy work times.
- carry items only at a height that you can safely see over to avoid trip hazards and bumping into things.
- Use an industrial-rated ladder or step stool (not domestic) to retrieve items from a height.

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## Quiz – Slips, trips and falls

5. What can your employer do to prevent slips, trips and falls at work?
  - a. Store boxes of goods near entries and exits
  - b. Use ambient lighting in high activity areas
  - c. Ensure floors and surfaces in the workplace are well-maintained and installed with task appropriate surfaces
  - d. None of the above
6. How can you prevent slips, trips and falls at work?
  - a. Clean up spills right away
  - b. Use an industrial-rated ladder or step stool to retrieve items from a height

- c. Wear suitable shoes for work
- d. All of the above

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## Electricity

Most office environments are considered low risk in terms of electrical hazards. Nevertheless, the consequence of an electrical incident is likely to be significant.

Electric shocks happen when a person becomes part of an electrical circuit and the current flows through their body. Electricity passing through the body can cause convulsions (involuntary contractions of the muscles) and the heart to stop beating, as well as internal and external burns. It can also cause secondary injuries resulting from falls or collisions and fire hazards resulting from an electrical fault.

Incidents with electricity are usually caused by:

- broken equipment or dangerous working conditions such as electrical cables that are frayed, loose, or have exposed wires
- broken power cords or power points
- electrical equipment that gives off a strange odour and overheating equipment
- installation and/or repairs being undertaken by an unqualified repairer
- the absence of a \*residual current device (RCD) and lack of testing of RCDs.

*A \*residual current device (RCD) is a safety switch or life-saving device designed to prevent you from receiving an electric shock if you touch something live, such as a bare wire. If you are using portable electrical equipment and extension leads at work, it must have an RCD installed at the switchboard, built into a fixed socket or through a portable RCD outlet. The RCD must be regularly tested. This is a legal requirement.*

### What can your employer do?

- It is your employer's responsibility to make sure electrical equipment in the workplace is in good working order and regularly checked.
- Portable electrical equipment should be maintained regularly, and checked and tested by a qualified electrician. Once the equipment is checked and tested, it should have a durable tag attached to clearly display the test date and the next scheduled test. This is known as tag and test.
- Follow the manufacturer's instructions for the installation and use of equipment.
- Remove, label as faulty and repair or replace faulty electrical equipment
- Store electrical equipment away from moist or wet areas.
- Avoid running electrical cords through high-traffic areas, under carpets or across doorways.
- Train you to use electrical equipment safely.

### What can you do to protect yourself from electrical shocks?

- Leave electrical equipment repairs to a qualified person.
- Inspect and check equipment for potential hazards before each use. Check instructions and follow them.
- Report any breakdowns or faulty equipment to your employer straight away.
- Switch off appliances at the power point before you pull out the plug.
- Never overload outlets or extension cords and never force a plug into an outlet if it does not fit.
- Keep electrical cords off the floor.



## Quiz – Electricity

7. To reduce the risk of electric shock you should:
    - a. pull out the plug quickly
    - b. tape frayed cords with electrical tape
    - c. switch off appliances before you pull out the plug
    - d. ask your mate to pull out the plug for you
  
  8. A residual current device (RCD):
    - a. can be a circuit breaker
    - b. is a safety switch to prevent electrical shock
    - c. is required to be installed at the switchboard when using portable electrical equipment, power tools and extension leads at work
    - d. all of the above
  
  9. An incident with electricity is usually caused by:
    - a. installation and/or repairs of electrical equipment by a qualified electrician
    - b. dangerous working conditions such as electrical cables that are frayed, loose or have exposed wires
    - c. using portable electrical equipment through a portable RCD outlet
    - d. inspecting and checking equipment for potential hazards before each use
- 

## Office environments

The most common physical hazards in the office are inadequate lighting, poor indoor air quality, smoking and noise.

Your employer has responsibilities to provide and maintain a safe workplace. A risk management approach (known as SAMM) should be used to address office safety and health issues, design office spaces, and select and use furniture and equipment.

### Lighting

Good lighting is very important for performing work tasks effectively. Appropriate lighting, without glare or shadows, can reduce eye fatigue and headaches. Bright sunlight can cause glare making it difficult to see a computer screen. Glare happens on your computer screen when one part of your work area is much brighter than another part.

Different activities in an office require different levels of light. For tasks such as detailed drawing or checking documents for errors you need high quality, moderately bright light. Tell your employer or health and safety representative (HSR) if there is a problem with your lighting so things can be rearranged.

### Indoor air quality

Your employer must maintain indoor air quality so as to prevent problems with workers' health or comfort, such as headache, eye, nose or throat irritation, dry cough, dry or itchy skin, tiredness or sensitivity to odours. Causes of indoor air quality problems may include:

- inadequate ventilation for the number of people occupying a space

- chemical contaminants from indoor sources (e.g. volatile organic chemicals emitted from carpets or manufactured wood furnishings, pesticides, cleaning agents, gas heaters, work processes producing fumes)
- chemical contaminants from outdoor sources (e.g. air intake located near a source of vehicle exhaust fumes, cigarette smoke, plumbing vents, kitchen or bathroom exhaust air)
- biological contaminants (e.g. mould or bacteria which thrives in damp conditions), bird droppings, dust mites, cockroach allergens, mouse droppings.

Tell your employer or HSR if you feel that indoor air quality is a problem for you. Your employer has a duty of care to take practical measures to ensure that you are not exposed to hazards such as poor air quality.

## Smoking/ vaping

Smoking is prohibited in all indoor working environments and all enclosed public places. The WHS legislation prohibits employers, employees and self-employed people smoking in enclosed workplaces.

The legislation may also be appropriate to apply on the use of e-cigarettes (vaping) in workplaces which are only allowed in designated outdoor areas.

## Noise

The level of noise in an office is not likely to be high enough to cause any damage to your hearing but it may be an issue if:

- you cannot hear people talking to you
- it annoys or distracts you or interferes with your work tasks
- it prevents you understanding an instruction or warning signal.

Inform your employer or HSR if the noise level is an issue for you.

## What can your employer do?

- Install acoustic ceilings and wall linings, carpets, barriers and acoustic hoods on printers to lower the noise level in an office.
- Separate noisy equipment like photocopiers and printers away from where work is done.
- Provide regular maintenance on machines and equipment to reduce noise interferences.

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## Quiz – Office environments

10. Noise in an office can be a workplace hazard if:

- a. it stops you concentrating on your work
- b. it annoys or distracts you
- c. it prevents you from understanding an instruction or warning signal
- d. all of the above

11. Employers can reduce noise levels in an office by:

- a. installing acoustic ceilings, wall linings, carpets and barriers
- b. providing headphones to all workers
- c. training workers to concentrate on the work so they become used to the noise from telephones, photocopiers and printers
- d. all of the above

12. What causes indoor air quality problems?
- Inadequate ventilation for the number of people occupying a space.
  - Chemical contaminants from indoor sources.
  - Chemical contaminants from outdoor sources
  - All of the above
13. Smoking is prohibited in all indoor working environments and all enclosed public places. This could apply to vaping.
- True
  - False
14. Which of the following statements about the office lighting are correct?  
Select **three** correct answers.
- Good lighting is very important for performing work tasks effectively.
  - Appropriate lighting, without glare or shadows, can reduce eye fatigue and headaches.
  - Glare happens on your computer screen when one part of your work area is much brighter than another part.
  - Different activities in an office require the same levels of light.
  - For tasks such as detailed drawing or checking documents for errors you need dim light to concentrate.
- 

## Working outside the office

*A 19 year old ICT worker was installing new software on a computer in a client's home. The client had a large dog, and offered to put the dog in the garden.*

*The worker loves animals and told the client he was happy to work with the dog in the house. The dog bit the worker. The worker needed 17 stitches and surgery to repair a damaged tendon.*

Some workers in the business and ICT industry are required to work in a range of locations, such as a client's home or business. If you are working away from the office, you still have rights under WHS law.

Your employer has responsibilities to provide and maintain a safe workplace, and you need to take reasonable care of your own safety.

When working outside the office, there are few things to consider.

- Your employer should train you to check for hazards (known as SAMM) when you arrive at a client's home or business, and provide you with an appropriate checklist. Common hazards include slip and trip hazards (from clutter or uneven walkways), bites and scratches from uncontrolled pets, traffic hazards and aggressive clients. Your employer must provide you with appropriate control measures.
- Your employer should have a way of contacting you if you are working alone away from the office. This could be a mobile phone and a set of times for you arrange to "check in" with your supervisor.
- If you are moving equipment from a vehicle, your employer must conduct a manual task risk assessment and provide training and equipment (e.g. trolleys) so you can do the work safely.
- Your employer should supply a portable RCD outlet for electrical equipment, and a first aid kit to keep in your vehicle.

**Remember:**

*Be aware of animals such as cats and dogs when you are entering clients' properties.*

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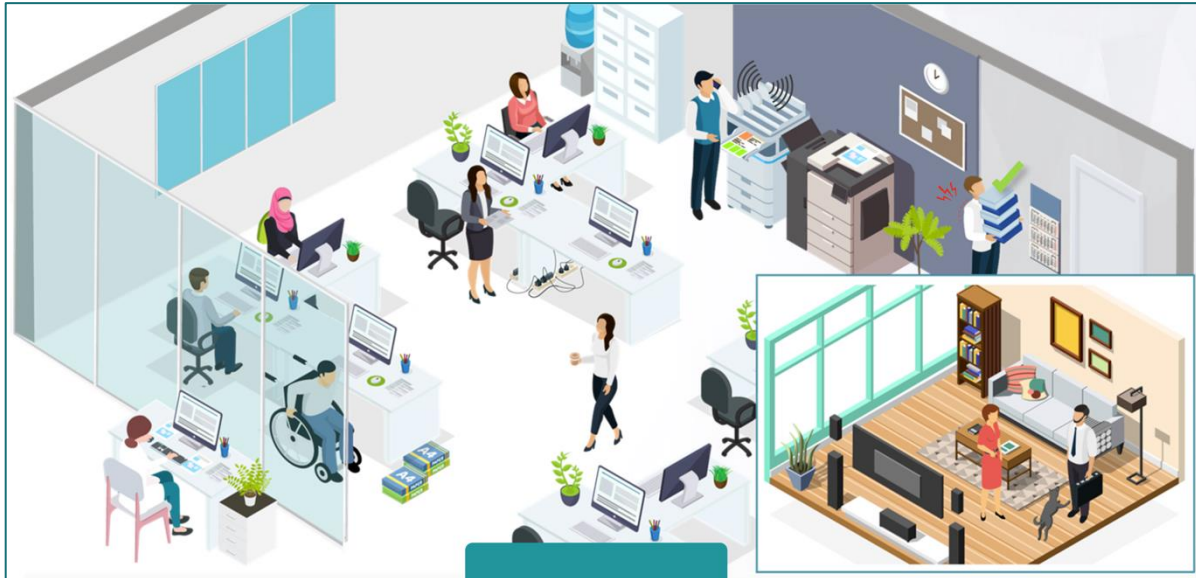
**Quiz – Working outside the office**

15. If you are working at a client's business or home, what should your employer do?
- Give you a portable RCD for electrical equipment
  - Provide a first aid kit
  - Make sure you have a way of contacting your supervisor if you are working alone
  - All of the above
16. If you are working at a client's home, what should you do?
- Ask the client to pay cash
  - Check for hazards using risk assessment checklist
  - Train the client's dog
  - Play with the client's cat
-

## Spot the hazards

### IT Solutions Perth

There are 6 hazards in this area. Try and find them all.



### Hazard notebook

Fill in the hazard notebook.

#	Spot the hazard	Assess the risk	Make the change	Monitor and follow-up
1	Person carrying too many items at once	Moderate	Offer to help with their loads	Ask the person to make more manageable loads. Later advise them that there is a manual task training session available
2				
3				
4				
5				
6				

## Business an ICT industry – Knowledge quiz

1. The most *common* health problems that can arise from hazardous manual tasks are:
  - a. musculoskeletal injuries
  - b. cold and flu
  - c. bone cancer
  - d. food allergies
  
2. What types of injuries can result from performing manual tasks?
  - a. Nerve injury or compression
  - b. Muscular and vascular disorders
  - c. Sprains and strains of muscles, ligaments and tendons
  - d. All of the above
  
3. Changing your body position often, stretching at regular intervals and taking breaks while at a workstation will help you \_\_\_\_\_.
  - a. lose weight
  - b. prevent musculoskeletal injuries
  - c. meet work deadlines
  - d. update social media posts
  
4. If you are unable to find a comfortable position at your workstation, you should ask your employer for an ergonomic assessment of your workstation.
  - a. True
  - b. False
  
5. What can your employer do to prevent slips, trips and falls at work?
  - a. Store boxes of goods near entries and exits
  - b. Use ambient lighting in high activity areas
  - c. Ensure floors and surfaces in the workplace are well-maintained and installed with task appropriate surfaces
  - d. None of the above
  
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  - a. Clean up spills right away
  - b. Use an industrial-rated ladder or step stool to retrieve items from a height
  - c. Wear suitable shoes for work
  - d. All of the above
  
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  - a. pull out the plug quickly
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- c. switch off appliances before you pull out the plug
  - d. ask your mate to pull out the plug for you
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  - b. is a safety switch to prevent electrical shock
  - c. is required to be installed at the switchboard when using portable electrical equipment, power tools and extension leads at work
  - d. all of the above
9. An incident with electricity is usually caused by:
- a. installation and/or repairs of electrical equipment by a qualified electrician
  - b. dangerous working conditions such as electrical cables that are frayed, loose or have exposed wires
  - c. using portable electrical equipment through a portable RCD outlet
  - d. inspecting and checking equipment for potential hazards before each use
10. Noise in an office can be a workplace hazard if:
- a. it stops you concentrating on your work
  - b. it annoys or distracts you
  - c. it prevents you from understanding an instruction or warning signal
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  - b. False

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  - b. Appropriate lighting, without glare or shadows, can reduce eye fatigue and headaches.
  - c. Glare happens on your computer screen when one part of your work area is much brighter than another part.
  - d. Different activities in an office require the same levels of light.
  - e. For tasks such as detailed drawing or checking documents for errors you need dim light to concentrate.
15. If you are working at a client's business or home, what should your employer do?
- a. Give you a portable RCD for electrical equipment
  - b. Provide a first aid kit
  - c. Make sure you have a way of contacting your supervisor if you are working alone
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- a. Ask the client to pay cash
  - b. Check for hazards using risk assessment checklist
  - c. Train the client's dog
  - d. Play with the client's cat
-