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Writers: D.Grime, S. Murphy

Editors: S. Murphy, D. Hoban

Version date: November 2015 V1

Produced by: Sydney Distance Education High School, Locked Bag 5000, Potts Point, NSW, 1335

Telephone:

Email: [sydneyh-d.school@det.nsw.edu.au](mailto:sydneyh-d.school@det.nsw.edu.au)

Website: [sydneyh-d.schools.nsw.edu.au](http://sydneyh-d.schools.nsw.edu.au)



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# Outcomes

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In this section you will learn about the importance of emergency preparedness, what the accident reporting requirements are, and how to prevent future accidents through preventive or corrective action.

By completing this unit, students will learn:

- About the various types of emergencies, including fire and medical
- The reasons behind the need to develop emergency plans
- About fire safety and first aid preparedness
- Preventive actions when dealing with hazardous substances
- Preventive actions when dealing with manual lifting
- Preventive actions when dealing with repetitive strain injuries
- Preventive actions when dealing with workplace stress
- Preventive actions when dealing with equipment in the workplace
- First Aid requirements

# SECTION INTRODUCTION

Nobody expects an accident, emergency or disaster – especially one that affects them, their employees, and their businesses personally. Yet the simple truth is that emergencies and disasters can strike anyone, anytime, and anywhere. Employees could be forced to evacuate the work area when you least expect it.

The best way to protect the workplace and its employees is to expect the unexpected and develop a well-thought-out emergency action plan to guide the company and employees when immediate action is necessary.

We have already discussed a range of workplace hazards and practices that may cause accidents in the workplace. It is important that you are able to identify potential workplace hazards and unsafe work practices, to ensure your own safety and that of others in your workplace.

We will look at the actions you could take to reduce the occurrence of hazards in the workplace and to eliminate unsafe work practices.

## TYPES OF EMERGENCIES

A workplace emergency is an unforeseen situation that threatens employees, visitors or the public; disrupts or shuts down work/production; or causes physical or environmental damage.

Disasters and emergencies can involve a single worker (for example a heart attack on the job), several workers, or a complete production plant or operation. Disasters or emergencies can be due to internal or external factors or natural disasters.

Internal factors include:

- Medical emergency
- Plant and equipment malfunction, collapses and falls
- Fire and/or explosion
- Material spills and leaks



- Machinery/equipment misuse
  - Violence or sabotage
- External factors include:
- Spills and leaks
  - Transportation accidents
  - Toxic release
  - Fire and explosion
  - Assaults and insurrection
  - Utility malfunction (Electricity, gas, water)
- Natural disasters include:
- Fire
  - Flood

- Earthquake

## REASONS FOR WORKPLACE EMERGENCY PREPAREDNESS

The reason for emergency preparedness planning is simple. Preparation can save lives and money. The aim of a business emergency plan is to reduce the risk of injury to visitors and/or employees and/or public, and to reduce the damage to property and environment that often results from a disaster. All employees should be aware of their workplace emergency plan. Knowledge, planning and practice can reduce the risk of any serious injury or death. Emergency preparation must be part of the overall business planning process. Each employee will have a certain responsibility in the plan and should be trained accordingly.

# EMERGENCY PLANNING

Every emergency plan is different, but all of them have some common features such as a list of officials and agencies that will respond to the emergency (police, fire, ambulance/paramedics), an outline of the structure and area plan of the workplace, who is in charge of the situation and a list of responsibilities.

It should describe the communication systems that will be used, as well as have a resource list for finding information, contacts and emergency equipment in a hurry. With a well thought out plan in effect and the proper first aid and emergency supplies made available, the workplace will be a much safer place and the personal and financial risks will be greatly reduced.

## EMERGENCY PLAN COMPONENTS

Firstly, the plan must be a written document. It must be developed in conjunction with any internal risk assessment details. The emergency plan is like all other planning documents in that it must be reviewed regularly and updated in line with any changes in processes, structures, hazardous conditions and organisational or statutory changes.

The emergency plan should cover:

- Fire and explosion
- Flood and earthquake
- Hazardous materials
- Dangerous equipment
- Site specific features
- External hazards
- Criminal activities

These procedures would need to also include escape and evacuation details:

- Emergency escape procedures, evacuation routes and assignments
- A workplace map with evacuation routes including from buildings
- Designated assembly point/s
- Ensure adequate exit signs in buildings
- Designated evacuation wardens
- Procedures for accounting of employees
- Defined types of evacuation (partial, full, shelter-in-place)

Details need to be included such as:

- Alarm systems - review the adequacy of current alarm system as well as training to how and what the alarm communicates.
- Shutdown procedures - written procedures to be followed by employees who remain to perform critical operations before they evacuate
- Rescue and medical duties - define who and what duties to be performed and ensure CPR/First Aid certifications are in place and current.
- Preferred means of reporting fires/other emergencies - manual pull-box alarm, public address systems, telephones, two way radios
- Emergency duties and responsibilities/chain of command – Designate an emergency response coordinator, emergency response teams (search and rescue, safety officer), public information officer/media communications, trauma coordinator depending on the size and extent of the operation

The duties of the coordinator should include:

- Directing all emergency activities including evacuation
- Ensuring outside emergency response authorities are notified
- Directing shut-down of plant operations if applicable
- Ensuring adequate procedures are developed
- Designate other duties, as necessary

The duties of the public information officer would include any disaster that causes danger - either real or perceived - to the public. Information about the disaster must be handled effectively.



This can be a spill of hazardous materials or a malfunction of machinery or equipment. The public must be informed, reassured, and kept abreast of actions being taken. The penalties for not doing so can be severe. The plan would also have a listing of emergency contacts:

- Adequate posting of individuals and telephone numbers for company contacts
- Emergency Response Authorities (000)
- Local fire, police and paramedics
- Suicide Prevention
- The State Emergency Service
- Poison Control

Something that most business operators forget about and that is 'backup'. It is important to back up irreplaceable records such as important documents; customer lists, accounting records, computer files, etc. at a separate site.

## PLAN DEVELOPMENT

There are four steps in developing an emergency plan.

Step 1 - establish a planning team

Step 2 - analyse capabilities and hazards

Step 3 - develop the plan

Step 4 - implement the plan

### Establish a Planning Team

The management first must communicate the commitment of the company to develop and support an emergency plan. This could be by way of an emergency response mission statement. The team would include representation from all functional areas of the business. The management would give the group authority to develop a plan and establish a schedule and budget.



### Analyse Capabilities and Hazards

In this step there would be a review of internal plans and policies such as evacuation plans, security procedures, and hazardous materials plans. The information from any hazard and risk assessment documents would be used to conduct a vulnerability analysis.

The vulnerability analysis would also include:

- Listing potential emergencies
- Estimating probability
- Assessing the potential human impact
- Assessing the potential property impact
- Assessing the potential business impact
- Assessing internal and external resources



The team would likely meet with outside groups such as emergency management office, fire department, police departments.

The team would need to:

- Identify any applicable government regulations
- Identify the critical operations
- Identify internal resources and capabilities including personnel, equipment, facilities, communications and emergency power
- Identify external resources such as hospitals, utilities, insurance carriers
- Do an insurance review to understand the requirements of the insurance provider

## Develop the Plan

In the development stage all the analysis and information gathered would be assembled in a form that would allow the drafting of an emergency plan. The plan components as outlined in the previous paragraphs would be included.

In this stage the following finalisation and distribution processes would also occur:

- Identifying challenges with implementing the plan
- Prioritising implementation activities
- Maintaining contact with management and other stakeholders
- Writing the plan
- Coordinating with outside organisations
- Reviewing the plan
- Revising the plan
- Seeking approval
- Establishing a training schedule

## Implement the Plan

One would hope that the plan would never have to be tested in real emergencies. However, the plan is there as contingency or emergency preparedness. Aside from implementing the plan in real emergencies, other parts of the plan would need to be implemented including:

- Acting on recommendations made during the vulnerability analysis
- Integrating the plan into operations
- Evaluating the plan
- Training employees

The emergency plan is an active document. It would need to be reviewed at least every twelve months. It would need the involvement of all levels of management in updating the plan. During the review process the plan would need to be checked for:

- Relevance. There may have been changes to machinery or equipment, processes or regulations.
- Making sure the plan reflects lessons learned from drills and actual events
- Ensuring that new members have been trained
- Ensuring that records of the company are up-to-date
- Ensuring that names and telephone numbers are current



# ACTIVITY ONE

**(1) What does emergency planning and preparedness reduce?**

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**(2) What would the duties of the emergency coordinator be?**

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**(3) What does 'vulnerability' mean and what does the vulnerability analysis in the planning process take into account?**

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**(4) Name ONE type of internal disasters/emergencies**

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**(5) Name ONE type of external disasters/emergencies**

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(6) Name ONE type of natural disasters/emergencies

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(7) What are the four steps in developing an emergency plan?

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(8) What are the nine emergency finalisation and distribution processes?

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## EMERGENCY TRAINING

The plans and the company's emergency preparedness will be only as effective as the training provided. Training would initially start when the plan is developed and would include all employees including all new/transferred employees. If the company employs contractors, they would need training before commencing work.



Ongoing training would take place when changes were made in the operation including when new equipment; materials and/or processes are introduced (including fire extinguisher use). Regular emergency refresher training should take place when drills indicate that performance must be improved and at the very least once every twelve months.

When establishing training schedules the management and safety representative need to determine who will be trained in what, who will do the training, and how the training will be accomplished including:

- In house or outside training or a combination of both
- Choose the type of training activity (table top exercise, walk-through drill, functional drill, evacuation drill, full-scale exercise)

Drills should be held at random intervals, at least annually, and include, if possible, outside police and fire authorities.

## HAZARDOUS SUBSTANCES

Australian occupational health and safety laws require that exposure to hazardous substances is kept below levels at which health problems are known to occur. These laws require workplaces to make sure everyone knows:

- What hazardous substances are being used
- What effects they can have on your health
- What has to be done to prevent or minimise exposure to hazardous substances

Hazardous substances include chemicals and any other substances that can affect your health, causing illness or disease. They may be solvents, pesticides, paints, adhesives, petroleum products, heavy metals or any other substance that is hazardous to health, and that may be used or produced at work. Hazardous substances can take many forms - liquids, solids, vapours, gases, fumes and/or dusts.

The substances must be labelled appropriately to ensure that users know they are hazardous. It must also be accompanied by a Material Safety Data Sheet (MSDS) setting out health effects, instructions for safe use and storage, and what to do in an emergency.

The easiest way to determine if a substance is hazardous is to look on the label for the words 'hazardous', 'warning', 'poison', 'dangerous poison', 'harmful', or 'corrosive', or any other advice about specific health effects.

Hazardous substances can enter your body in different ways. The most common ways are:

- By breathing in the substance (inhalation);
- Absorption through the skin (dermal), or;
- Accidental swallowing (ingestion), (by eating or smoking with contaminated hands).

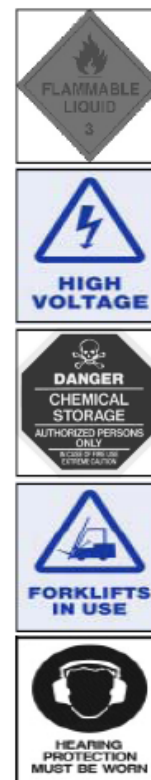
Your employer must take action to prevent employee exposure to hazardous substances at work, or if that is not practicable, to ensure that exposure is adequately controlled so as to minimise risks to employee health.

As an employee, you have the responsibility to work safely using the control measures provided. To ensure you can work safely, you have the right to be provided with information and training on any hazardous substances to which you may be exposed. This should include advice about health hazards, reading labels on containers and the emergency procedures, incident reporting and first aid.

Take the time to learn what hazardous substances are present in your workplace.

## FIRE EMERGENCIES

Fire safety is important business. Legislation, regulations and standards require employers to provide proper exits, fire fighting equipment, emergency plans, and employee training to prevent fire deaths and injuries in the workplace.



## FIRE EXITS

Each workplace building must have remote from each other, at least two means of escape to be used in a fire emergency.

Fire doors must not be blocked or locked to prevent emergency use when workers are within the buildings. Delayed opening of fire doors is permitted when an approved alarm system is integrated into the fire door design. Exit routes from buildings must be clear and free of obstructions and properly marked with signs designating exits from the building.



## PORTABLE FIRE EXTINGUISHERS

Each workplace must have a full complement of the proper type of fire extinguisher for the fire hazards present.

Employees expected or anticipated to use fire extinguishers must be instructed on the hazards of fighting fire, how to properly operate the available fire extinguishers, and what procedures to follow in alerting others to the fire emergency.

Only approved fire extinguishers are permitted to be used in workplaces and they must be kept in good operating condition. Proper maintenance and inspection of this equipment is required of each employer.

When the employer wishes to evacuate employees instead of having them fight small fires, there must be written emergency plans and employee training for proper evacuation.

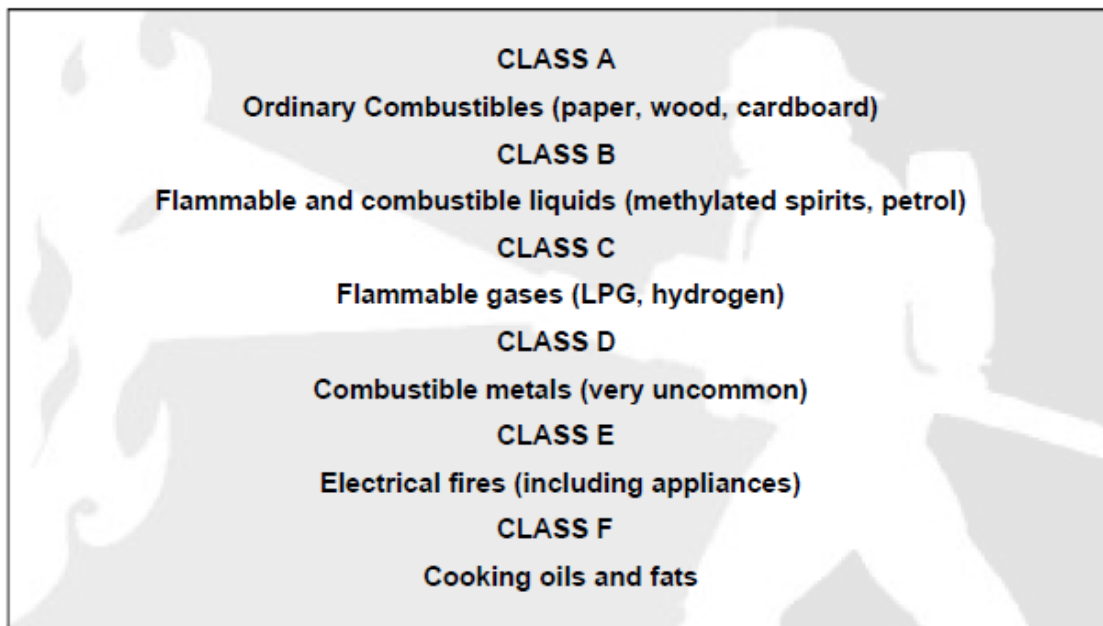


## TYPES OF FIRE EXTINGUISHERS

There are a number of types of portable fire extinguishers available in Australia.

Each type of extinguisher may be rated for one or more classes of fire.

In some cases, particular extinguishers are not only considered ineffective against certain classes of fire, they can be dangerous in those circumstances.



Portable fire extinguishers are distinguishable by their labels and their colouring. In 1997 the Standard Colours of some portable extinguishers were changed. It is therefore likely that you may encounter two of the same type of extinguishers with different colourings.

**Water** - Solid Red in colour - Suitable on Class A fires. Not considered effective on Class B and C fires, and dangerous if used on electrically energised equipment or cooking oils and fats.

**CO<sub>2</sub>** - Red with a black band - Suitable on Class E fires. Has limited effectiveness on Class A, Class B, Class C, and Class F fires.














**Foam** - New Colour Red with Blue Band (Old colour solid Blue) - Suitable on Class B and may be used on Class A and, limited effectiveness on Class F fires. Not to be considered effective on Class C fires, and dangerous if used on electric equipment.

**Dry Chemical or Powder** - Colour Red with White Band - These extinguishers are rated as either ABE or BE. ABE rated extinguishers are considered suitable on Class A, Class B, Class C and Class E fires. They are not effective on Class F fires. BE rated extinguishers are considered suitable on Class B, Class C, and Class E fires, and may be used with limited effectiveness on Class F fires. They are not considered effective on Class A fires.

**Wet Chemical** - New Colour is Red with Oatmeal (muddy yellow) Band (Old Colour is Oatmeal) - Suitable on Class F fires and may be used on Class A fire. Not considered effective on Class B or Class C fires and dangerous if used on Class E fires.

**Vapourising Liquid** - New Colour is Red with Yellow Band (Old Colour is Yellow) - Suitable on Class A, Class E fires. Has limited effectiveness on Class B and Class C fires. Not considered effective on Class F fires.



 <b>Fire Protection Association Australia</b>		<b>Portable Fire Extinguisher Guide</b>					<b>Fire Protection Association Australia Website</b> <a href="http://www.fpa.com.au">www.fpa.com.au</a>	
Two colour schemes for fire extinguishers exist		EXTINGUISHANT	CLASS A	CLASS B	CLASS C	CLASS E	CLASS F	<b>CLASS D</b> For fire involving combustible metals use special purpose extinguisher
PRE 1999	FROM 1999		Wood Paper Plastics	Flammable & Combustible Liquids	Flammable Gases	Electrically Energised Equipment	Cooking Oils and Fats	
		WATER	YES	NO	NO	NO	NO	Dangerous if used on flammable liquid, energised electrical equipment and cooking oils/fat fires
		WET CHEMICAL	YES	NO	NO	NO	YES	Dangerous if used on energised electrical equipment
		FOAM	YES	YES	NO	NO	LIMITED	Dangerous if used on energised electrical equipment
		POWDER	YES <small>(ABE)</small> NO <small>(BE)</small>	YES <small>(ABE)</small> YES <small>(BE)</small>	YES <small>(ABE)</small> YES <small>(BE)</small>	YES <small>(ABE)</small> YES <small>(BE)</small>	NO <small>(ABE)</small> LIMITED <small>(BE)</small>	Look carefully at the extinguisher to determine if it is a BE or ABE unit as the capability is different
		CARBON DIOXIDE	LIMITED	LIMITED	LIMITED	YES	LIMITED	Not suitable for outdoor use
		VAPORISING LIQUID	YES	LIMITED	LIMITED	YES	NO	Check the characteristics of the specific extinguishing agent

LIMITED indicates that the extinguishant is not the agent of choice for the class of fire, but that it may have a limited extinguishing capability.  
 Solvents such as alcohol or acetone mix with water and therefore require special foam  
 Green text indicates the class or classes in which agent is most effective

## OTHER FIRE FIGHTING EQUIPMENT

**Hose and reels** – in some buildings high pressure water hoses and reels have been installed.

**Sprinkler systems** – many industrial and commercial building are required to have sprinkler systems installed. A valve sensitive to heat cause by fires releases high-pressure water spray over the area.

**Fire suppression** – these systems are used when water or other agents would cause more damage than the fire itself – computer rooms, document storage, etc. The system is installed in a way that the area is quickly filled with an inert gas that starves the fire of oxygen (CO<sub>2</sub>, halogen, etc.)

**Fire blankets** – these blankets are made of non-flammable materials are effective in smothering small fires or wrapping around a person whose clothes are on fire. The blanket is also used as protection when escaping a fire.

## FIRE EMERGENCY EVACUATION PLANNING

As previously discussed, each employer needs to have a written emergency action plan for evacuation of employees that describes the routes to use and procedures to be followed by employees. Also procedures for accounting for all evacuated employees must be part of the plan. The written plan must be available for employee review.

Where needed, special procedures for helping physically impaired employees must be addressed in the plan; also, the plan must include procedures for those employees who must remain behind temporarily to shut down critical plant equipment before they evacuate.

The preferred means of alerting employees to a fire emergency must be part of the plan and an employee alarm system must be available throughout the workplace complex and used for emergency alerting for evacuation. The alarm system may be voice communication or sound signals such as bells, whistles or horns. Employees must know the evacuation signal. The workplace must also display evacuation maps.

The main points to remember during an evacuation procedure are:

- Leave the building immediately
- Do not stop to collect your personal belongings.
- Close the door behind you if you are the last to leave
- Do not use elevators/lifts in the event of a fire
- Use the Fire Exit stairs and head to the ground floor
- Do not stop until you reach a safe area on the street
- Close all fire doors behind you to prevent fire from spreading



## FIRE PREVENTION PLAN

Employers need to implement a written fire prevention plan to complement the fire evacuation plan in order to minimise the frequency of evacuation. Stopping unwanted fires from occurring is the most efficient way to handle them. The written plan shall be available for employee review.

Housekeeping procedures for storage and clean-up of flammable materials and flammable waste must be included in the plan. Recycling of flammable waste such as paper or packaging is encouraged; however, handling and packaging procedures must be included in the plan.

Procedures for controlling workplace ignition sources such as smoking, welding and burning must be addressed in the plan. Heat producing equipment such as burners, heat exchangers, boilers, ovens, stoves, etc., must be properly maintained and kept clean of accumulations of flammable residues; flammables are not to be stored close to these pieces of equipment.

Employees must be instructed on proper re-fuelling techniques and the safe method of storing fuels. This would include fire safety instruction in the event of a fuel fire.

Bush fire seasons present a whole different way of thinking. Certain activities must not be undertaken when total fire bans are in place.



These would include:

- Welding or cutting steel outside
- Burn offs
- Operating welding or flame cutting equipment outside unless absolutely necessary where there is a fire danger

Outside workers need to understand the risks involved when doing tasks during high fire risk periods. All employees are to be advised of the potential fire hazards of their job and the procedures required in the employer's fire prevention plan. The plan shall be reviewed with all new employees when they begin their job and with all employees when the plan is changed.

## FIGHTING FIRES

Before persons consider fighting a fire, they must ensure that all persons in the area are alerted and have left or are leaving the building, and ensures that someone calls the Fire Brigade or '000'. Then the question must be asked whether or not you should fight the fire at all. In most cases, a portable fire extinguisher only offers sufficient fire fighting agent to fight a relatively small fire. It may be more effective and safer to leave the fire to the fire brigade. If you leave a fire, close off the area if possible as you go.

If you do decide to fight the fire with an extinguisher follow these basic steps.

- 1) Pull the extinguisher pin
- 2) Aim the nozzle at the base of the fire
- 3) Squeeze the handle to release the extinguishing agent
- 4) Sweep the extinguisher from side to side at the base of the fire until the fire appears to be out.

It is recommended that the entire extinguishing agent is used to ensure the fire is out.





## ACTIVITY TWO

(1) List 7 key points to remember in the event of a fire evacuation.

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_
- 6 \_\_\_\_\_
- 7 \_\_\_\_\_

## MANUAL HANDLING

Manual handling means more than just lifting or carrying something. The term 'manual handling' is used to describe a range of activities, including lifting, lowering, pushing, pulling, carrying, moving, holding or restraining an object, animal or person. It also covers activities which require the use of force or effort, such as pulling a lever or operating power tools.

Up to one third of all work injuries in Australia occur during manual handling. Most of the reported accidents involving manual handling tasks cause back injury (although hands, arms and feet are also vulnerable). Sometimes, the injured person never fully recovers or requires a long period of rehabilitation before they are able to work again. A risky situation can arise when tasks are poorly designed, or where handling involves awkward or constrained postures. These conditions can make it difficult for you to use safe handling techniques.



Your employer has a legal responsibility to provide a safe and healthy workplace for all employees. The national standard for manual handling requires that all tasks in your workplace, which involve manual handling, are identified and that the risk or likelihood of injury is assessed. Where there is a risk of injury, suitable 'control measures' must be introduced. Control measures need to be suitable and practical. They might include:

- Redesigning the task or load that needs to be moved;
- Providing mechanical handling devices such as hoists or trolleys;
- Safe work procedures such as team lifting, or;
- Specific training for particular handling tasks.

As an employee, if you are aware of anything in your workplace which could be a manual handling risk, you should discuss it with your manager or supervisor and try to find the best way of eliminating or reducing it. Also, talk to your health and safety representative or notify your health and safety committee if your workplace has one.

Part of your employer's responsibility to provide workers with a safe and healthy workplace involves providing training and information about safe working practices. In relation to reducing the risk of a manual handling injury, this might involve providing training in correct work methods, such as lifting techniques and the correct use of mechanical aids. Supervisors and managers, health and safety representatives, and staff responsible for work organisation and job and task design should also receive training. As an employee you have a responsibility to follow procedures for working safely, and to use any protective equipment which may have been provided for your use.

## **NOISE**

The ability to hear is one of our most precious gifts. Without it, it is very difficult to lead a full life either on or off the job. If sounds and noises are too loud, they can permanently damage your hearing. The danger depends on how loud the noise is and how long you are exposed to it. The damage builds up gradually and you may not notice changes from one day to another, but for most effects of noise, there is no cure. So preventing excessive exposure to noise is the only way to avoid hearing loss.

Your health and safety at work is protected by law. Employers have a duty to protect employees and to keep them informed about health and safety matters. The federal government health and safety agencies have declared a national standard for noise in the workplace as 85 decibels, averaged over an eight-hour working day. The national standard also stipulates that noise in the workplace must never exceed 140 decibels at any time. Most States and Territories have adopted this national standard. However, you should check with the Occupational Health and Safety Authority in your State or Territory for the precise requirements for your workplace.

As an employee, you have a responsibility to follow work safety guidelines and instructions.

Here's how you can contribute to reducing workplace noise levels:

- ◆ Take a cooperative interest in workplace noise problems
- ◆ Help develop policies, plans and work practices for dealing with noise problems
- ◆ Suggest possible noise controls for the equipment you know and operate
- ◆ Assist management to design solutions
- ◆ Take responsibility for the preservation of your own hearing by using hearing protectors whenever necessary

# REPETITION STRAIN INJURIES



'Repetition strain injury' (RSI) is the name given to a range of conditions - usually caused or aggravated by poor work processes and unsuitable working conditions - that involve repetitive or forceful movements or the maintenance of constrained or awkward postures. The condition is characterised by discomfort and persistent pain.

Symptoms RSI often include swelling, numbness, restricted movement and weakness in or around muscles and tendons of the back, neck, shoulders, elbows, wrists, hands or fingers. It may become difficult to hold objects or tools in the hands, affecting your ability to function at work and at home. Symptoms can vary from

person to person and may often involve more than one part of the body.

In the early stages, the pain may be slight. If action is taken immediately, no damage is likely to occur. If no action is taken, the condition may get worse. Pain may continue while doing other movements or even while not using the injured part of the body at all. Pain generally stops with rest, but prolonged periods of rest may be necessary to reduce severe pain. If nothing is done to redesign the work to eliminate or reduce the risk of injury, then permanent damage may result.

It is particularly a problem in office work (keyboard, typing, clerical work), mail sorting, some kitchen work, cleaning, hair dressing and among musicians.

Prevention can involve changes to the way your work is organised:

- Reorganise the workload so that you can mix repetitive and non-repetitive activities
- Frequent, short rest breaks should be introduced if the job cannot be varied or rotated
- Simple and gentle exercises performed at the workstation can reduce muscle tension
- Ergonomically designed furniture, chairs, desks and computers are available which can be adjusted to suit employees of different shapes and sizes
- The work area may be able to be rearranged so that materials, equipment and controls can be easily reached without stretching or twisting

From "HEALTH AND SAFETY IN THE OFFICE" "WorkCover. Watching out for you."

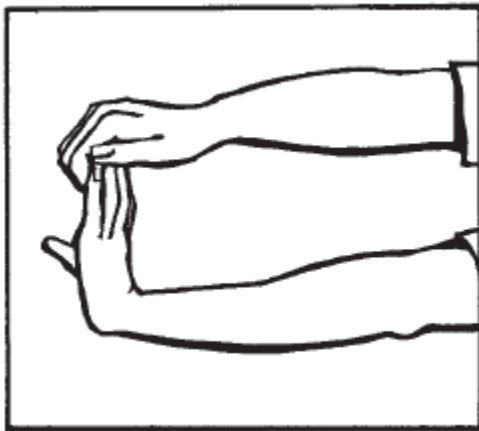
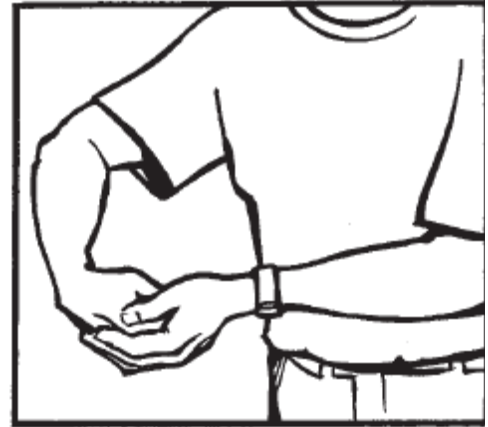
## Muscle care and preparation

The following exercise should be done before commencing work and after lunch breaks. However it is important to:

- never stretch to the point where pain is experienced
- refrain from doing these exercises if you have a medical condition that could be made worse by stretching.

The benefit of these exercises is best achieved by a gentle stretching action over periods of at least 30 seconds.

Bend your wrist and fingers with your other hand, bending your elbow slightly at the same time, until you feel the stretch over the back of your forearm. Hold the position for 30 seconds.



Stretch your arm out in front of you with your elbow straight, palm facing away from you (fingers pointing up or down). Then with your other hand pull your fingers backwards until you feel the stretch over the front of your forearm. Hold the position for 30 seconds.

Tuck your chin down onto your chest and gently turn your head from side to side, keeping your chin on your chest. Do this ten times.



Turn your head slowly from side to side ten times.



# Exercises for rest breaks

## Tall stretch:

Interlock fingers, palms up. Stretch arms above the head until they are straight. Do not arch the back.



## Toe-in, toe out:

Place feet shoulder-width apart, heels on the floor. Swing toes in, then out.

## Shoulder roll:

Roll the shoulders – raise them, pull them back, then drop them and relax. Repeat in the opposite direction.



## Side stretch:

Drop left shoulder, reaching left hand towards the floor. Return to starting position. Repeat on right side.

## Back curl:

Grasp shin, lift leg off the floor. Bend nose towards the knee. Note: This or post-natal conditions.



forward curling the back, with exercise should be avoided inpre-



## Ankle

Hold

Flex ankle (pointing toes up)

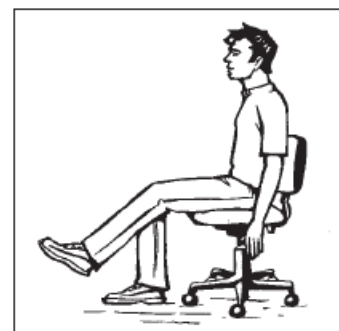
and extend (pointing toes toward the floor). Repeat with other leg.

## flex:

one foot off the floor, leg straight.

## Leg lift:

Sit forward on the chair and place feet on the floor. With a straight leg, lift one foot a few centimetres off the floor. Hold for a second and then return it to the floor. Repeat with the other leg.



WorkCover NSW

# STRESS

Stress is the body's natural response to pressured or stressful situations we find ourselves in, and which we are not certain we can cope with effectively. Situations that are unfamiliar, challenge or threaten us, increase our level of stress.

There are many different levels of stress that can be produced in response to any given situation. The level of stress you experience depends on your personality, your state of health, and many other factors.



You should not assume that stress is always a bad thing. Stress comes with work and family responsibilities and is unavoidable. It keeps us motivated and can provide a great sense of achievement once the stressful situation has passed. Stress also increases the level of energy and muscle tension in our body, improving our ability to concentrate and meet demands.

A stress response is your natural reaction to pressure or a situation, which may require higher energy levels to help you to cope. The source of your stress - the factor or situation that in some cases can have a positive effect on you and motivate you, but at other levels will affect you negatively - is called a stressor.

Stress is found in all workplaces, and can have both good and bad effects on individuals, their work performance and their health and well-being. Efforts to control or manage stress levels when it is causing problems in the workplace should focus on changing the work environment or providing affected employees with help to reduce high levels of stress.

Your employer can only aim to reduce the amount of stress in your workplace. It is unrealistic to assume any workplace could be made totally free from stress. It is your employer's responsibility to reduce the level of stress in the workplace so it is manageable.

For any plan to manage stress in the workplace to be useful, your employer must first assess the work environment and workers' needs. Problems or stress areas have to be properly identified. To get an idea of the real causes of stress, work surveys and a review of work practices can be useful.

Some workplaces have training programs to improve your skills and abilities. Training programs can include coping techniques such as muscle relaxation, meditation and time management.

Employers may also introduce lifestyle information into the workplace. These can be in the form of pamphlets or newsletters, which give information about health, exercise and diet.

Employee Assistance Programs (EAPs) can help manage stress at work and at home. These programs are set up to handle personal and emotional problems, which are interfering with work performance. Stress from outside the workplace, such as family illness/ death, marital problems, or financial concerns can all interfere with our work lives. An EAP will not solve these problems, but it can give you advice on managing these stressful situations

# FIRST AID

All workplaces must provide access to first aid facilities. A workplace should also have at least one designated person responsible for first aid facilities.

If you have been designated the first aid officer then you should make sure that you are properly trained and that the first aid facilities are always well stocked and ready for use in case of an emergency. The person designated as the workplace first aid officer should hold a current first aid certificate. A number of first aid certificate courses are available throughout Australia. First aid qualifications can and do expire, so refresher training for first aid attendants will be necessary.



All staff should be made aware of whom the designated first aid person in the workplace is. If the first aid kit is not located near the first aid officers, then their names and contact telephone numbers should be listed inside the first aid kit box in a visible area.

The types of first aid facilities required in your workplace are determined by:

- The laws and regulation of the state or territory you live in
- The type of industry you work in (industries such as mining may have specific industry regulations detailing specialised instructions)
- The type of hazards present in your workplace
- The number of employees in your workplace
- The number of different locations that your workplace is spread over
- The proximity to local services (doctors, hospital, ambulance)

The first aid facility should meet the needs of your workplace. Facilities can include first aid kits or sick rooms. If your workplace has rotating shifts then each shift should have its own first aid designated person. It is also best if your workplace has more than one designated first aid officer for any given shift to cover for workplace absences.

First aid kits should be clearly marked and placed in a highly visible area. A first aid kit should be well stocked with dressings and bandages, disinfectants, fasteners, safety pins and other equipment such as resuscitation masks, scissors and splinter forceps.

Always ensure that the first aid kit has clear instruction leaflets or guides placed somewhere easily referred to. It is always reassuring in the event of an emergency to have clear and easy instructions to follow or have someone else read to you.

Always check that there is no hazard to you, the injured person or other workmates in an emergency. You will not be of much assistance if you become the next casualty.

Make sure there is always a supply of latex gloves in the first aid kit. You should always wear these gloves to prevent transfer of infection from contact with open wounds or bodily fluids.

Resuscitation face masks should be used when trying to resuscitate a casualty. Most masks will have a replaceable mouthpiece, which should be disposed after each use. The mask should also be cleaned in soapy water and disinfected by soaking in a bleach and water solution.

First aid officers should always record details of any injured person they treat. For assessment of potential hazardous areas, it is important that the following information be written in a register:

- The name of the injured person and their occupation
- The nature of the injury
- A brief description of the treatment given and name of the person who gave the treatment
- How the accident occurred and what the injured person was doing at the time the accident occurred
- Date, time and place of the accident



# MEDICAL EMERGENCIES / FIRST AID

A medical emergency is an injury or illness that poses an immediate threat to a person's health or life which requires help from a paramedic, doctor or hospital.

In many cases a workplace is not near (within 4 minutes) a doctor's surgery, clinic or hospital therefore it is important, and in some operations a requirement, to have one or more persons trained in first aid. Prompt, properly administered first aid care can mean the difference between life and death, rapid vs. prolonged recovery and temporary vs. permanent disability.

First aid is a series of simple, lifesaving medical procedures that a non-medical person can be trained to perform in medical emergency situations, before the intervention of emergency medical technicians or doctors. It is best to obtain training in first aid before a medical emergency occurs.

***A person not properly trained in first aid is advised not to attempt any first aid in serious medical emergencies. Wrong procedures can do more harm than good.***

As part of an over WHS safety program a company should have a first aid program. Circumstances and hazards in each workplace should determine program details. Among the factors to consider:

- Location and availability of medical facilities or emergency services, including response time for external services (should be no more than 4 minutes for life-threatening situations in the absence of onsite help)
- Accessibility of medical personnel to consult on occupational health issues
- Types of accidents that could reasonably occur in the workplace
- Number and location of workers on the site
- Industry or government requirements
- The level of first aid training employees should receive and which employees should be trained
- The first aid supplies that should be available, determined with the help of an occupational health professional.



It is generally recommended that first aid trainees should have 'hands on' skills to quickly respond to acute injury and illness events likely encountered in their type of workplaces, such as shock, bleeding, poisoning, burns, temperature extremes, musculoskeletal injuries, bites and stings, medical emergencies (heart attacks, etc.) and confined spaces.

Even if a workplace is in 'near proximity' (4 minutes or less) to external emergency services, it still is suggested that companies have employees trained in first aid and cardiopulmonary resuscitation (CPR).

An important aspect of training is learning to make correct decisions during an emergency, including not rendering aid beyond one's training. First aid training organisations suggest that companies hold drills at least once a year for first aid personnel.



There are many providers of first aid training – the most well known being St. John Ambulance of Australia.

# FIRST AID KITS

The Work Health and Safety regulators in each state have regulations and standards relating to first aid kits. The regulations address the needs of the employees and takes into account:

- The type of business, the type of job site and hazards
- The number of employees
- The size of the facility (refers to placement of kits)

These factors will determine what should be contained in the kits, how many kits the workplace should have, and where the kits should be placed. The standard commercial/industrial first aid kit would contain:

- Dressing Strips
- Gloves – Latex
- Antiseptic Towels
- Safety Pins
- Tape – Dressing 25mm
- Plastic Bags (1 x Small, Medium & Large)
- Crepe Bandage (5cm)
- Crepe Bandage (1 x 7.5cm & 10cm)
- Cotton Bandages (1 x 5 cm, 7.5cm & 10cm)
- Triangular Bandage
- Wound Dressing No.15
- Wound Dressing No.13
- Eye Pads
- Swabs - Gauze
- Splinter Probes
- Dressing Combine (2 x 9 x 10cm, 9 x 20cm & 20 x 20cm)
- Dressing Non-Adherent 10 x 20cm
- Dressing Non-Adherent 10 x 7.5cm
- Emergency Blanket
- Scissors – Surgical 125mm
- Forceps – 125mm
- Sodium Chloride - 30mls (AUST R 11290)
- Sodium Chloride – 30mls Sachet (AUST R 31019)
- CPR Chart
- First Aid Manual
- First Aid Pamphlet



In larger operations, they may have a first aid room. A highly trained first aid person would probably oversee the operation of the room.

Depending on the type of operation it could have the following:

- Stretchers for transporting injured workers
- Bed(s), bedding, blankets
- Crutches
- Eye washers
- Showers
- CPR aids
- Breathing aids and apparatus
- AED's (Automated External Defibrillator for heart attacks)



## ACTIVITY THREE

(1) What 5 pieces of information needs to be recorded after treating someone with first aid?

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_

Many people though view risk qualitatively, meaning that they are concerned with the presence of a hazard and develop their own view of the associated risks. There are a number of characteristics associated with risk, which affect people's perceptions. Some people may consider a risk 'safer', whereas others may view the risk as 'riskier'.

# SAFETY SIGNS

The Australian Standard (AS1319-1994) sets out requirements for the design and use of safety signs in the workplace. It specifies sign classifications and layouts, and that the type of sign used should be suitable for the intended application, and that employees should be informed of their purpose.

In locations where lighting is good and a sign is mounted in a reasonably prominent position, it is recommended (but not required) that any symbols be at least 15mm per metre of viewing distance, and any uppercase text be at least 5mm per metre of viewing distance. Where practical, signs should be mounted close to the observer's line of sight in the vertical plane.

For maximum effectiveness, signs should be maintained in good condition, kept clean and well illuminated.

To make it easy for you to find the sign you need, the signs have been individually named and are grouped in the following categories:



## Regulatory Signs:

These are considered mandatory signs indicating that an instruction must be carried out. Generally the symbols are white, and appear on a blue disc.



## Prohibition Signs:

These signs indicate that an action or activity is prohibited. The symbol of the activity is crossed out with a red circle with a slash through it.



## Hazard Signs:

These signs are a warning of a hazard or hazardous situation that is not likely to be life threatening. The shape is a black triangle with a yellow interior and a black symbol. If text is used it is black lettering on a yellow background.



## Danger Signs:

These signs are a warning of a hazard or hazardous situation that can be life threatening. The red, black and white danger banner is used, often with other text. Symbols are not used.



### Fire Signs:

These signs advise the location of fire alarms and fire fighting equipment. These signs feature a white symbol and/or text on a red background.



### Emergency Signs:

These signs show the location of, or direction to, emergency related facilities such as exits, first aid, and safety equipment. These signs feature a white symbol and/or text on a green background.



### Information Signs:

These signs communicate information of a general nature, to avoid misunderstanding or confusion.



### Dangerous Goods Signs (HAZCHEM):

These signs assist in managing the transport of and storage of dangerous good in accordance with the regulatory requirements of the Dangerous Good Act 1975 and the Dangerous Goods (General) Regulation 1999.

### Some more examples of Safety Signs;

#### Safety Symbols



No access for unauthorized persons!



Fire, naked light and smoking prohibited!



No access for persons with pacemakers during experiments!



Do not switch! Work in progress on the electrical.



The Highway Code applies. Speed limit 30km/h; parking restricted to designated areas.

#### Safety Symbols



Caution - ionizing radiation!



Attention - dangerous electrical voltage!



Attention - laser beam! No access for unauthorized persons!



Attention - crane area: suspended loads!



Handling of hazardous substances restricted to qualified persons!

#### Safety Symbols



Inform your superior immediately in the event of an accident. Treat each injury immediately and note in the first aid logbook.



Always keep emergency exits clear.



Suitable protection, e.g. helmet, must be worn wherever necessary.



Fire extinguishers and alarm system must be kept accessible.



MPE is insured with VBG - Verwaltungs-Berufsgenossenschaft. All work must be carried out giving consideration to the valid occupational safety and accident prevention regulations.



## ACTIVITY FOUR

- (1) On page 33 are more Safety Signs. Please cut out each type of sign and paste it in under the correct heading below. At the bottom of each type of sign, in your own words, describe what each type of sign is for.

**Regulatory Signs:**

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**Prohibition Signs:**

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**Hazard Signs:**

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**Fire Signs:**

---

---

**Information Signs:**

---

---

**Hazard / Prohibition:**

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**(2) Choose ONE of the Managing Workplace Accidents topics that you have just read through.**

**On your own paper write a report of at least half a page describing in detail how that issue is managed in YOUR school or workplace, or the workplace of a family member or friend. IF APPROPRIATE you could include examples of how actual issues have been managed in that workplace.**

**Note, you will have to do some additional research to complete this report. You will at least have to talk with the people responsible for workplace management. You could also include copies of relevant documentation such as an evacuation plan if you are looking at evacuations.**

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# SELF ASSESSMENT

## DID YOU LEARN?

THE FOLLOWING QUESTIONS ARE YES AND NO QUESTIONS.

IF YOU CANNOT ANSWER YES TO EACH QUESTION IT IS SUGGESTED YOU REVIEW THE MATERIAL AGAIN.

### TYPES OF EMERGENCIES

Do you recall examples of internal, external and natural disasters that can become workplace emergencies?

### REASONS WORKPLACE EMERGENCIES PREPAREDNESS

Can you remember the aim of a business emergency plan?

### EMERGENCY PLANNING

Are you able to understand the components that make up an emergency plan?

Can you describe how to establish, analyse, develop and implement an emergency plan?

### EMERGENCY TRAINING

Do you know how emergency training should be provided?

### HAZARDOUS SUBSTANCES

Do you know what the Australian occupational health and safety laws require people in the workplace to know?

Can you recall the most common ways hazardous substances enter the body?

### FIRE EMERGENCIES

Are you able to explain some of the valuable tips to apply when?

- a) Building Fire Exits?
- b) Using Fire Extinguishers?
- c) Making an Emergency Evacuation Plan?

### FIRE AND EMERGENCY EVACUATION

Are you able to recall the main points to remember during an evacuation procedure?

### MANUAL HANDLING

Can you remember how 'manual handling' covers a wide range of activities, and what these are?

Are you able to explain some of the 'suitable measures' that would need to be introduced, if a risk of injury is likely?

### NOISE

Do you know why preventing hearing loss is so important?

Can you recall the maximum decibel level that noise should never exceed in the workplace?

### REPETITION STRAIN INJURIES

Can you recall the causes of RSI, and what its' symptoms are?

Are you able to name some of the occupations that experience increased incidences of RSI?

### STRESS

Do you know how stress can affect you positively or negatively?

Can you explain how workplaces assist in helping improve skills and abilities to cope with stress?

### FIRST AID

Can you recall the requirements of a first aid officer?  
Are there determining factors in the type of first aid facilities in the workplace?  
Do you know what is required in a first aid kit?

### MEDICAL EMERGENCIES/FIRST AID

Are you able to explain the factors to consider when a company is putting together a first aid program?

### PREVENTIVE/CORRECTIVE ACTIONS

Do you know what is required when taking any preventative or corrective actions in an operation?

