HLTAID001 Provide cardiopulmonary resuscitation

Learning Guide





HLTAID001 - Provide Cardiopulmonary Resuscitation

Learner's Workbook

Copyright Text copyright © 2016-19 by Global Institute of Marketing Pty Ltd

Under Australia's Copyright Act 1968 (the Act), except for any fair dealing for the purposes of study, research, criticism or review, no part of this book may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without prior written permission from Global Institute of Marketing Pty Ltd. All inquiries should be directed in the first instance to the publisher at the address below.

Copying for Education Purposes

The Act allows a maximum of one chapter or 10% of this book, whichever is the greater, to be copied by an education institution for its educational purposes provided that that educational institution (or the body that administers it) has given a remuneration notice to Global Institute of Marketing Pty Ltd.

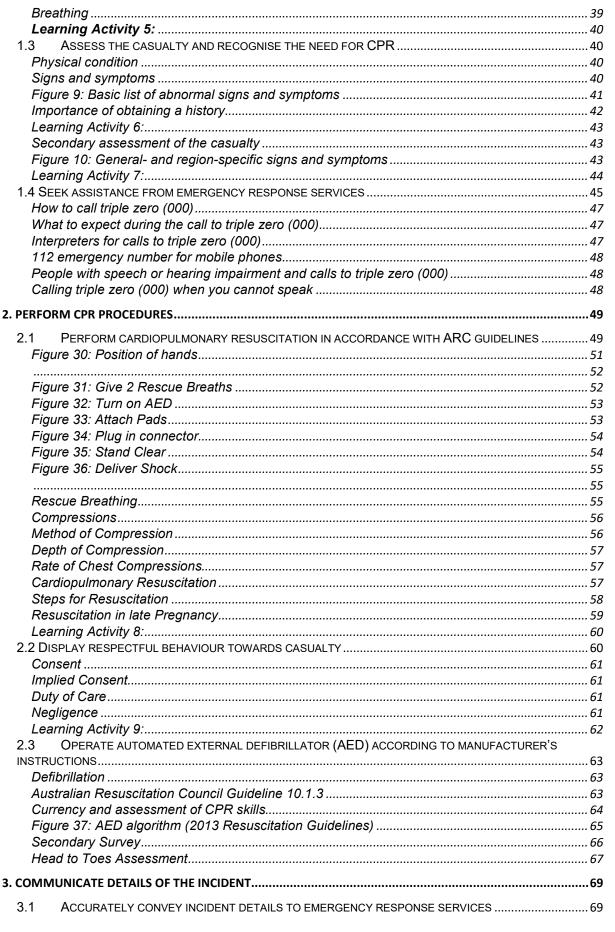
Disclaimer

All reasonable efforts have been made to ensure the quality and accuracy of this publication. Global Institute of Marketing Pty Ltd assumes no responsibility for any errors or omissions and no warranties are made with regard to this publication. Neither Global Institute of Marketing Pty Ltd nor any authorized distributors shall be held responsible for any direct, incidental or consequential damages resulting from the use of this publication.



Table of Contents

Application of the Unit:	
This Learning Guide covers:	6
Learning Program	6
Additional Learning Support	6
Using this learning guide/workbook:	6
THE ICON KEY	7
1. RESPOND TO AN EMERGENCY SITUATION	8
1.1 RECOGNISE AN EMERGENCY SITUATION	8
Learning Activity 1: Car accident scenario	9
Emergency First Aid	10
How to Call an Ambulance	10
Figure 1: The Chain of Survival	
Cross Infection	
First Aid Hygiene	
Learning Activity 2:	
Figure 2: Common Hazard Tool	
Standard precautions	
Observe and manage bystanders	15
Moving the casualty	
When and how to move a casualty	
Lifting / Moving Techniques	17
Road accidents	
1.2 IDENTIFY, ASSESS AND MANAGE IMMEDIATE HAZARDS TO HEALTH AND SAFETY OF SELF AND	
OTHERS	
Types of physical hazards	
Types of physical hazards and how they can affect you	
LEARNING ACTIVITY 3:	
Minimising immediate risk	
Case Study:	
Learning Activity 4:	
How to minimise risks by controlling the hazards in accordance with WHS requirements	
Examples of minimising the risk by controlling the hazard	
How can we control the risk?	
Exposure to blood, vomit and other body fluids	
Assess casualty	
Signs of life	
Figure 3: Checking casualty for consciousness	
Conscious person	
Unconsciousness	
Casualty Assessment	
Figure 4: Primary Survey	
Figure 5: Basic Life Support Flow Chart	
Open airway	
Breathing	
Figure 6: Checking casualty for breathing	
Airway	
Figure 7: Backward Head Tilt and Chin Lift	
Airway Management	
Figure 8: Advanced Life Support for Infants and Children	
Recognition of Upper Airway Obstruction	
Management of Foreign Body Airway Management (Choking)	38



FIRST AID

Using relevant communication media and equipment	70
Learning Activity 10:	
Calling '000' Emergency Services	
112 – The digital alternative	
106 – The Text Emergency Call Service	
Lodging a call to Emergency Services	73
Learning Activity 11:	74
The casualty's condition	76
Learning Activity 12:	76
Handing over to Emergency Services personnel	77
3.2 REPORT DETAILS OF INCIDENT TO WORKPLACE SUPERVISOR AS APPROPRIATE	77
Physical condition	78
Case Study: sprained ankle	
Changes in conditions	
Case Study: Asthma attack	
Management	
Response to management	
Learning Activity 13:	
3.3 MAINTAIN CONFIDENTIALITY OF RECORDS AND INFORMATION IN LINE WITH STATUTORY AND/OR	
ORGANISATIONAL POLICIES	
National Privacy Act	
Privacy principles	81
BIBLIOGRAPHY	83

FIRST AID EDUCATION



HLTAID001 - Provide Cardiopulmonary resuscitation

Application of the Unit:

This unit of competency describes the skills and knowledge required to perform cardiopulmonary resuscitation (CPR) in line with the Australian Resuscitation Council (ARC) Guidelines.

This unit applies to all workers who may be required to provide CPR in a range of situations, including community and workplace settings

Specific licencing requirements relating to this competency, including requirements for refresher training should be obtained from the relevant state/territory Work Health and Safety Regulatory Authority.

This Learning Guide covers:

- Respond to an emergency situation
- Perform CPR procedures
- Communicate details of the incident

Learning Program

As you progress through this unit you will develop skills in locating and understanding an organisations policies and procedures. You will build up a sound knowledge of the industry standards within which organisations must operate. You should also become more aware of the effect that your own skills in dealing with people has on your success, or otherwise, in the workplace.

Knowledge of your skills and capabilities will help you make informed choices about your further study and career options.

Additional Learning Support

To obtain additional support you may:

• Contact First Aid Education and request to speak to your facilitator

Using this learning guide/workbook:

A learning guide is just that, a guide to help you learn. A learning guide is not a text book. This learning guide will

- describe the skills you need to demonstrate to achieve competency for this unit
- provide information and knowledge to help you develop your skills
- provide you with structured learning activities to help you absorb the knowledge and information and practice your skills
- direct you to other sources of additional knowledge and information about topics for this unit.



The Icon Key



Key Points

Explains the actions taken by a competent person.

Activity

Provides activities to reinforce understanding of the action.

Chart

Provides images that represent data symbolically. They are used to present complex information and numerical data in a simple, compact format.



Intended Outcomes or Objectives

Statements of intended outcomes or objectives are descriptions of the work that will be done.



1. Respond to an emergency situation

1.1 Recognise an emergency situation



- **1.2** Identify, assess and manage immediate hazards to health and safety of self and others
- **1.3** Assess the casualty and recognise the need for CPR
- **1.4** Assess the situation and seek assistance from emergency response services

1.1 Recognise an emergency situation

In emergency cases, fast and efficient first aid can save lives. In many cases, first aid can reduce pain and discomfort, prevent further injuries from occurring, or stop an injury or illness from becoming worse. Competent first aiders can also help to calm and reassure the casualty thus reducing stress and anxiety.



The aim is to:

- preserve life
- prevent injury or illness from becoming worse
- protect the unconscious casualty
- promote a safe environment
- provide reassurance
- seek medical help
- help promote recovery.

All first aid procedures provided by the first aider should be limited by the extent of his/her role and skills. Where the first aid management or medical treatment required is beyond a first aider's level of competence, the first aider should seek assistance from trained professionals such as an ambulance officer, medical practitioner, or occupational health nurse.

In any first aid situation it is essential that you take precautions to ensure your own safety and the safety of others. Potential risks of illness and/or injury can present in any first aid situation and may result from:

- exposure to blood, vomit and other body fluids;
- acts of aggression;
- an unsafe scene, for example, oncoming traffic in a road accident, or fallen power lines;
- bystanders placing themselves and others at risk of injury;



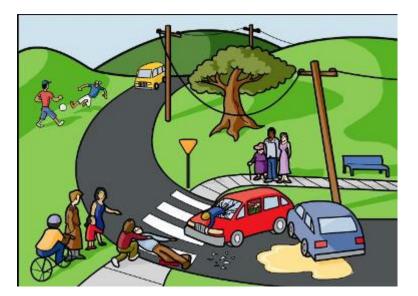
- back, neck or shoulder injuries sustained when moving objects;
- the presence of smoke, fire or poisonous fumes.

Tips for taking care of yourself and others:

- always assess for any potential dangers and ensure the area is safe before approaching;
- use standard precautions, such as wearing gloves, to protect yourself from potential contact with blood and other body fluids;
- do not unnecessarily move the casualty or heavy objects;
- observe and manage bystanders;
- seek professional counselling and debriefing, if required.

Learning Activity 1: Car accident scenario





As part of your learning journey you will come across many situations. The accident scene above contains real or potential hazards. Can you find them? List them below;





Emergency First Aid

Priorities in an Emergency



In all emergency situations, the rescuer must:

- Assess the situation quickly
- Ensure safety for the rescuer, casualty and bystanders
- Call for help
- Commence appropriate treatment following the Basic Life Support Flow Chart.

Emergency Action Plan

- Call First, call Fast Call for Help
- Stay with the Casualty you should not leave an injured person alone, because if they become unconscious they will not be able to help them self

Your Action Plan should include the following:

- **1.** Quickly assess the situation.
 - **a.** Ensure safety for yourself and the casualty. Where there is danger, remove the cause of danger from the casualty or the casualty from the cause, without putting yourself in danger.
 - **b.** Decide what you must do first, following the priority given under the **DRSABCD** of First Aid.
 - **c.** Move the casualty as little as possible. The casualty should be moved with care only if:
 - in danger from fire, road traffic, hot road surfaces, electric current, drowning etc, providing it is safe to do so.
 - it is necessary to establish and maintain a clear airway or perform CPR
 - d. Reassure the casualty.
 - **e.** Let the conscious casualty rest in the position he finds most comfortable.

How to Call an Ambulance

- **1.** Dial "000" (Triple Zero) in an emergency (if unsuccessful trying 000 on a mobile then try 112).
- f. Ask for ambulance.
- **g.** Give the location of where the ambulance has to go (that is, state, district or suburb, street, road, address). Give a cross-street reference, building or landmark.
- **h.** Give the phone number you are calling from and your name.



- i. Explain exactly what has happened.
- j. Possible number of casualties (people hurt or sick).
- **k.** How old the casualty is.
- **I.** If the casualty is conscious/ breathing.
- m. DO NOT hang up until the operator tells you to.

When calling for help, the **"call first"** approach is recommended. This is because in the vast majority of cardiac arrests, the arrest is due to ventricular fibrillation, which is treatable by defibrillation. Outcomes of these patients have significantly improved when the time to defibrillation is short. In cardiac arrests occurring in children, or where the arrest is due to airway obstruction or inadequate ventilation, (e.g. submersion, drug overdose) there is a potential benefit in commencing resuscitation before calling for help. In these cases, the **"call first call fast"** approach is recommended as in the next section. In many situations the call for help will occur at the same time as the commencement of resuscitation.

Where there is more than one casualty, the care of an unconscious casualty has priority.

The casualties that are calling out should not distract the rescuer; their needs are less urgent as they are able to breathe.



Sudden cardiac arrest is the unexpected collapse of a casualty whose heart has stopped. Cardiac Arrest occurs suddenly and is closely linked with sudden chest pain. It is estimated that more than 95% of Sudden Cardiac arrest casualties die before reaching hospital. The casualty in cardiac arrest has only minutes from collapse until death is inevitable.

The 'Chain of Survival' is the term applied to a sequence of actions, which can be instrumental in resuscitating a casualty in cardiac arrest. While each action in the chain is unlikely on its own to revive a casualty, all of them used together effectively will provide a better chance for a successful outcome.

1st Link - Early Access

Call first - Call fast. Get to the cardiac arrest casualty quickly and call '000'





2nd Link - Early CPR

Early Cardiopulmonary Resuscitation (CPR) performed by a Carer can buy lifesaving time.

3rd Link - Early Defibrillation

Early defibrillation is perhaps the most significant link of all

4th Link- Early Advanced Cardiac Life Support

This is provided by ambulance/paramedics.



Cross Infection

The risk of cross infection is low but diseases can pass between the casualty and Carer and between casualties. It is therefore a requirement of the Carer to take reasonable precautions to prevent cross infection.

It is essential that as a Carer, you approach all situations involving body fluids: saliva, vomit, blood, urine and faeces etc. as potentially infectious, adopting appropriate precautions to protect yourself.

In the event of Blood/Body Fluid Contact

If blood contact is made by a used needle stick:

- Allow the wound to bleed freely.
- Wash thoroughly with soap and water.

If blood/body fluids come into contact with your skin:

• Wash thoroughly with soap and water.

If eyes are contaminated:

• Rinse gently with water making sure to wash under the eyelids.

If mouth is contaminated:

- Spit out and rinse with water.
- Always seek medical advice for further treatment.

As a Carer, you are there to assist a person who has been injured or is suffering any form of illness and therefore you need to have a basic understanding of the human anatomy and how the body functions.



First Aid Hygiene



The risk of cross infection is very low. The Carer should take some precautions in all first aid situations. Protection such as gloves protects you and the casualty from infection. You must assume that in every emergency situation, everybody is a carrier of an infectious disease, such as HIV, hepatitis, or meningitis. Body fluid can enter your bloodstream through cuts or cracks in the skin, or through the mouth or eyes. Sneezing or coughing from the casualty could spray contagious substances onto you.

Using protection barriers between you and the casualty's body fluids can easily prevent transmission of these diseases. Examples of first aid barriers recommended are:

- Resuscitation masks,
- Gloves and eye or face shields.
- Additional washing before and after first aid is important and gives additional protection.

Before Treatment

Always wear gloves if available take care not to touch any unclean object when wearing gloves or once hands are washed.

- Wash hands with soap and water, or rinse with antiseptic.
- Ensure that hands are washed thoroughly between fingers and under nails.
- If possible, use a protective cover over clothing.
- Cover any adjacent areas likely to produce infection.

During Treatment

- Avoid contact with body fluids.
- Avoid coughing, breathing, or speaking over the wound.
- Avoid treating more than one casualty without changing gloves between each casualty.
- Use a face shield or mask with a one-way-valve, if available, when doing active resuscitation.
- Use only clean bandages and dressings.

After Treatment

- Wash hands and disposes of gloves.
- Clean up both casualty and yourself.
- Clean up the immediate vicinity.
- Dispose of dressings, bandages, gloves and soiled clothing correctly by burning.

Wash hands with soap and water even if gloves were used.



Learning Activity 2:



As part of your learning journey you need to be aware of your immediate area and its potential hazards. Look around your immediate area and identify 3 potential physical hazards and the potential effect that they may have on an individual.

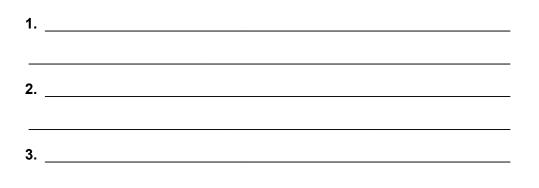




Figure 2: Common Hazard Tool

Hazard	Typical Problems	Typical Injury/ Illness requiring first aid
Manual handling	Overexertion/Repetitive movement	Sprains, strains, fractures
Falls	Falls from heights, slips and trips on uneven surfaces	Fractures, bruises, cuts, dislocations, concussion
Electricity	Contact with electrical current	Shock, burns, loss of consciousness, cardiac arrest
Plant	Being hit by projectiles, striking objects, being caught in machinery, overturning vehicles.	Cuts, bruises, dislocations, fractures, amputation, eye damage.
Hazardous substances	Exposure to chemicals, e.g. solvents, acids, hydrocarbons	Dizziness, vomiting, dermatitis, respiratory problems, burns to skin or eyes.
Temperature, UV radiation	Effects of heat or cold from weather or work environment	Sunburn, frostbite, heat stress, heat stroke, hypothermia
Biological	Allergens, needle stick, exposure to infectious agents.	Severe allergic reaction, injuries, skin rash, infection
Occupational violence	Intimidation, conflict, physical assault	Nausea, shock, collapse, physical injuries

This tool is not a comprehensive guide to workplace hazards. it provides examples of typical problems created by workplace hazards, an some of the resultant injuries and illnesses. You may have hazards other than those listed here.

Your own list of potential injuries and illnesses, and their likely causes, will be developed from information specific to your workplace and the type of work performed. Use this Tool as a starting point, to provide a framework for collecting the information you need.

Standard precautions

Standard precautions are a set of guidelines that assist first aid officers protect themselves from accidental exposure to blood or other body fluids during the provision of first aid. Standard precautions include wearing gloves when in contact with blood and body fluids and using a disposable mask when giving rescue breaths to the unconscious casualty who shows no signs of life.

General principles for protecting yourself as a first aider:

- Wear gloves whenever there is the potential for contact with blood or other body fluids;
- Wash hands or other skin surfaces thoroughly with soap and water if they are contaminated with blood or other body fluids;
- Wash eyes with running water if they are splashed with blood or body fluids;
- Avoid accidental injuries, for example, cuts from broken glass;
- Encourage the casualty to treat themselves where possible. For example, the casualty may be able to apply direct pressure to their own bleeding wound;
- Use Personal Protective Equipment (PPE) where available, for example, gloves, face shields, masks and goggles;
- Dispose of waste materials and sharps appropriately.

Observe and manage bystanders

Bystanders are the people who are in the immediate area of the accident scene. Many bystanders might have witnessed the incident and might be extremely anxious or in a state of shock and unable to protect themselves from any dangers. It might be necessary to assist bystanders to a safe place and to offer shelter, warmth and reassurance. Bystanders who are in shock and/or are grieving might need emotional support. Preferably this should be offered by a trained counsellor. Some bystanders have even been known to act heroically, placing their own safety at risk in order to assist in some way.

Some people act without thinking in emergency situations and try to implement first aid management that might be incorrect or even dangerous. It is important that bystanders are given clear directions and are made to feel that they can







contribute to the management of the situation. Sometimes making suggestions as to how bystanders can help can prevent people from acting inappropriately.

Moving the casualty



Moving the casualty should be avoided in most circumstances. This is especially true if the casualty has sustained any potential injuries to the head, neck, back or spine. Moving the casualty unnecessarily may cause further injuries to the casualty and may cause back, neck or shoulder injuries to the people attempting the move. Moving the casualty should only take place if you are unable to provide life saving measures in the current position or if there are any immediate threats to life, for example, fire and explosion.

When and how to move a casualty

Movement, increasing pain, injury, blood loss and shock, may worsen the condition of a collapsed or injured casualty. A rescuer should only move a collapsed or injured casualty. To ensure the safety of both rescuer and the casualty, or where extreme weather conditions or difficult terrain indicate that movement of the casualty is essential to make possible the care of Airway, Breathing, and Circulation (e.g. turning the unconscious breathing casualty onto the side or turning a collapsed casualty on the back to perform cardiopulmonary resuscitation effectively) to make possible the control of severe bleeding.

All unconscious persons who are breathing must remain on their side.

The trained rescuer should stay with the casualty and send others to seek assistance. If movement is necessary, and help is available, the most experienced rescuer should take charge. Then explain clearly and simply the method of how movement of the casualty will happen to the assistants, and to the casualty if conscious.

Moving a Casualty

If possible, it is always better to move the danger away from the casualty rather than move the casualty away from the danger. As the Carer does not know if the casualty is suffering from any injury, movement could aggravate the injury unnecessarily.

The Carer should only move an unconscious or injured casualty if:

- Danger is present to both the Carer and the casualty.
- Extreme weather conditions or terrain are present.
- The casualty is unconscious requiring them to be placed in the side position.
- Severe life threatening bleeding needs to be controlled.

If movement of the casualty is required:



- Avoid bending/twisting the casualty's back and neck.
- Avoid movement of the casualty's head.
- Drag the casualty rather than lift the casualty.
- Support any injured limbs.
- Gain the assistance of bystanders if possible.

Prior to shifting a casualty, **under normal circumstances** ensure:

- Completion of both the primary and secondary surveys and any subsequent treatment.
- Protection of all injuries while moving the casualty.
- The casualty is informed of the plan to move them.
- The lifting is smooth and follows a plan of action.
- Communication with all personnel helping to move the casualty.

Lifting / Moving Techniques

There are a variety of ways to lift a casualty. Following is a list of the more commonly used lifting techniques.

Dragging

Used when the casualty is in danger and needs to be moved quickly. This is dangerous to all involved. Drag the casualty by the shoulders avoiding any movement of the neck and spine. Support the casualty's head at all times.

Arm Assistance

Used for the casualty who can walk and support his or her own weight on both legs. The casualty places one arm across the Carer's shoulders and the Carer places one arm around the causality's back.

Carry Lift

This is normally used for children. The Carer carries the casualty in both arms.

Blanket Lift

The casualty is placed on a strong blanket that can be carried by two or more people.

Two-Handed Seat

The hands of two Carers are interlocked and the casualty can sit on the Carer's hands, placing their arms around the Carer's shoulders for further support.

Road accidents

Car accident



In most circumstances, try to provide first aid care to the casualties in the vehicle, but only if it is safe to do so. Removal of a casualty from a vehicle





should only take place if you are unable to provide life saving measures in the current position or if there are any immediate threats to life such as fire and explosion.

Motorbike accident

Motorbike helmets can provide support to the head, neck and spine and should only be removed if it is impossible to maintain an open airway or give life saving measures with the helmet in place. If removal of the helmet is required, it is preferable that an ambulance officer or other trained person does this.





1.2 Identify, assess and manage immediate hazards to health and safety of self and others



A hazard is a condition or situation that exists with the potential to cause injury or illness. There are numerous types of hazards such as physical, chemical, ergonomic (low chairs, computers placed away from eye level), radiation (Xrays, alpha particles), psychological (shiftwork, repetitive tasks) and biological (HIV, hepatitis). In this topic we will concentrate mainly on physical hazards in the workplace.

A physical hazard is something that you can see that poses a risk to your health or your safety as well as to the health and safety of others.

Types of physical hazards

There are different types of physical hazards. These can include the following:

- excessive noise;
- high or low temperatures;
- anything that can cause slips, trips and falls, for example a wet floor, cords lying on the floor;
- mechanical, for example, poor lighting;
- electrical, for example frayed wires;
- layout of the workplace, for example, high shelves poorlydesigned work stations;
- equipment in the workplace, for example, faulty equipment.

What hazards do you see as you walk around your workplace or even in your own home? Perhaps you see:

- a chair with a wobbly leg
- a frayed electrical cord
- a floor mat with the corner turned up
- a table with a sharp edge
- a rusty nail sticking out of a fence.

Types of physical hazards and how they can affect you

Let's revisit the examples of physical hazards listed above. Ask yourself, could these hazards cause injury or sickness?

The answer is yes, they could.

Take each example above and think of how each hazard could cause harm to you. Did you come up with the answers below?



- If you sat on a chair with a wobbly leg the chair could break, and you could fall off the chair and hurt yourself.
- If you used a frayed electrical cord, you could be electrocuted and cause serious harm to your body, particularly your heart.
- You could trip over the corner of the floor mat causing you to fall and injure yourself, perhaps breaking a bone or twisting your ankle.
- You could scratch yourself walking past a table with a sharp edge.
- You could puncture yourself with the rusty nail sticking out of a drawer.

Physical hazards cannot only cause injuries, they can also cause sickness. For example, poor lighting or lack of ventilation in the workplace can cause headaches or sickness. These conditions can lead you to feel tired and to become unproductive in your job and, ultimately, you could make mistakes which could possibly cause further injuries to yourself or others.

Learning Activity 3:



As part of your learning journey revise your reading by answering True or False to the following

- **a.** A hazard has the potential to cause injury or illness. **True / False.**
- **b.** A broken chair doesn't matter as no-one would sit in it anyway. **True / False.**
- **c.** A cracked drinking glass is an example of a physical hazard. **True / False**.



Minimising immediate risk

There's not much point identifying and reporting a chair with a broken leg if that chair is going to remain where it is. We need to take a further step and minimise the immediate risk by removing the chair to prevent people from sitting on it and falling over.

A risk is the probability of a hazard that results in injury or illness. We need to ask ourselves how likely it is that this particular situation could occur and how serious it could be?

Types of immediate risks

Generally, risks may include:

• worksite equipment, furniture machinery and substances;



- environmental risks;
- bodily fluids;
- further injury to the casualty.

If you see a frayed electrical cord, this should alert you to the possibility that somebody could be electrocuted if they used it. This is very likely (high risk) and immediate action should be taken, such as removing the cord, thus prohibiting its use.

Case Study:



Let's look at the following example:

You are asked by your supervisor to clean the glass on the photocopier machine with a particular cleaning chemical. You think about the safety of using a cleaning solution without wearing gloves. You think of the risk of direct contact with the cleaning solution on your hands and its consequences. The chemical could be absorbed through your skin and into your blood stream possibly causing a burn to your skin and generalised poisoning.

Is there an immediate risk to you? Absolutely!

How could the risk be controlled? Your workplace needs to supply disposable gloves if it is expected that staff will use cleaning solutions.

Learning Activity 4:



As part of your learning journey read the following scenario and answer the question below. An individual has stumbled and fallen off the treadmill in the gym. They are unconscious on the floor after hitting their head and there appears to be some displacement of their knee. What would be your "first" priority in your plan of management?



How to minimise risks by controlling the hazards in accordance with WHS requirements

Policies and procedures



Duties under the Work Health and Safety Act 2011 should be met by developing and implementing policies and procedures to minimise the risk of workplace transmission of infectious diseases. Documented policies and procedures on infection control in first aid should at least cover:

- standard precautions;
- hygiene;
- management of a blood or body substance spillage;
- waste management;
- sharps management;
- laundry management;
- cleaning, disinfecting and sterilising first aid equipment;
- immunization;
- PPE, and;
- management of skin penetrating injuries and other blood or body substance exposures.

Hygiene

Hand washing is an important measure in preventing the transmission of infection. Adequate hand washing facilities should be provided at the workplace. Hands should be washed using soap and water before and after contact with an ill or injured person. They should also be washed before and after contact with blood, body substances or contaminated items and after removal of protective gloves. An alcoholic chlorhexidine hand wash (available from pharmacies) or equivalent should be used in emergency or field situations, where hand washing facilities are limited or not available.



Waterproof dressings should be provided to allow first aid personnel to cover cuts or abrasions. This reduces the risk of an injured person's blood or body substances coming into contact with a first aid person's broken skin.

First aid personnel who have skin problems, such as dermatitis, and who are exposed to blood and body substances, should seek medical advice regarding the risk of infection.

First aid personnel and workers should not eat, drink or smoke when working in an area where blood or body substances may be present.

Management of blood or body substance spillage

Spills should be attended to as soon as possible. Protective gloves should be worn. Absorbent material, such as paper towels should be used to absorb the bulk of the blood or body substance. These contaminated materials should then be disposed of in a leak-proof, sealed waste bag.

After this, the area should be cleaned with warm water and detergent and then disinfected. A suitable disinfectant is a freshly prepared 1:10 dilution of 5% sodium hypochlorite (household bleach) in water. Mops and buckets should be rinsed with warm water and detergent and stored dry.



After cleaning the contaminated area and equipment, reusable gloves and other protective clothing should be removed and disinfected. Hands should be washed after items have been disinfected and gloves have been removed.

If a spill occurs on carpet, as much of the spill should be mopped up as possible and the area then cleaned with a detergent. Where there is significant spillage, arrangements should be made to have the carpet shampooed with an industrial carpet cleaner.

Large spills, such as may occur after a road accident, may be safely hosed down with water, by workers wearing protective clothing.

A 'spills kit' should be available where there is a risk of blood or body substance spills. A 'spills kit' should contain:

- PVC, household rubber or disposable latex gloves
- cleaning agents
- disposable absorbent material, and
- a leak-proof bag.

Waste management

Contaminated waste should be placed in a leak-proof bag or container and sealed. The bag or container should not be overfilled. All waste should be handled with care, to avoid contact with blood and body substances. Gloves should be worn when handling contaminated waste bags and containers.



Where significant amounts of first aid waste are generated, contaminated items should be placed in clinical waste bags. These are yellow coloured plastic bags which display the international biohazard sign (available from medical suppliers). Waste disposal should comply with state or local government requirements.

Sharps

Sharps are a major cause of accidents involving potential exposure to biological hazards which can pose a risk of transmission of hepatitis B, C and the HIV virus. Where there is a risk of finding discarded sharps, tongs or a similar item should be available to pick up sharp items safely.

The person who uses a sharp should be responsible for its safe disposal. Sharps should be handled with care. They should not be bent, broken or reheated as these unsafe practices are common causes of sharps injuries.

Sharps should be disposed of in a puncture resistant sharps container. Sharps containers should be located as close as possible to the area where sharps are used. Disposal of sharps containers should be in accordance with local government requirements.



Laundry

Soiled linen should be identified as such and kept separate from other linen. PVC, latex or household rubber gloves and protective clothing should be worn when handling soiled linen. Heavily soiled linen should be placed in a leak-proof bag and securely closed.

Examples of minimising the risk by controlling the hazard

Here are some examples of minimising risks by controlling hazards:



- The chair has a wobbly leg remove the chair and report the hazard.
- An electrical cord is frayed take the cord away and report the hazard.
- The corner of the floor mat is turned up tape it down or remove the mat, and report the hazard.
- A table has a sharp edge pad the corner or remove the table, and report the hazard.
- A nail is sticking out of a drawer pad the nail, then stay away from the drawer and report the hazard so that it can be fixed.

How can we control the risk?

Here are some suggestions:



• people can be separated from the risk;



- personal protective clothing can be worn (eg goggles, gum boots and gloves);
- staff can be trained and better informed;
- lifting equipment can be used;
- power tools can have guards;
- safety switches can be used;
- air driven tools can be used to reduce the need for electricity;
- office furniture can be carefully selected;
- signs can be erected (in other languages besides English, if required);
- work health and safety policies and procedures should be followed.

Remember that if the hazard cannot be removed then we need to control the risk.

Exposure to blood, vomit and other body fluids

If you have been exposed to blood or other body fluids follow the procedures outlined below.

Needle stick injury

- Squeeze the needle stick injury site to express as much blood as possible;
- Thoroughly wash the site with soap and water;
- Keep the needle or object that caused the injury, but only if it is safe to do so;
- Follow any additional workplace policies and procedures. Note: You can phone the Needlestick Injury Hotline on 1800 804 823 even if the injury does not occur in the workplace;
- Seek medical advice.

Blood or other body fluid splashes to the mouth, nose or skin

- Immediately flush the affected mouth, nose or skin area with running water.
- Wash any outer skin surfaces with soap and water.
- Follow any additional workplace policies and procedures.
- Seek medical advice.

Blood or other body fluid splashes to the eyes

- Flush the eyes with clean or sterile water, as available.
- Follow any additional workplace policies and procedures.
- Seek medical advice.





Assess casualty

Ask yourself these questions whenever you observe a casualty:

- What do I see? You may see blood, a swollen hand or a bruise.
- What do I hear? You may hear, crying, moaning or heavy breathing.
- What do I smell? You may smell vomit or urine.
- What is my intuition? This person may need attention quickly. You may need to inform your supervisor immediately.

Assessment of casualties needs to be carried out quickly and thoroughly according to workplace procedures so that appropriate action can be taken and help can be sought immediately.

Signs of life

If you find yourself in a situation where someone requires first aid for any reason, it is important not to panic but, rather, briskly assess for signs of life and call for help. Make sure it is safe to approach the casualty, and check for the following signs of life:

- Is the casualty conscious or unconscious (unresponsive)?
- Is the casualty breathing?
- Is the casualty moving?
- Consciousness (responsiveness).

You are conscious now because you are awake and reading this topic, and you are able to respond to the doorbell or the telephone ringing. If people are unable to respond to questions and other stimuli because of sickness or injury, however, they are unconscious, and this requires urgent medical care.



Can you think of some situations in which a person could become unconscious? Below are some situations that could lead to unconsciousness. Did you think of some of these situations?

- Electrocution;
- Drowning;
- funnel web spider bite;
- car accident;
- head injury;
- exposure to extreme heat or cold;
- explosion;
- poisoning;
- epileptic fit;



burns.

Make sure it is safe to approach the casualty and that you are not putting yourself or others at risk, before you assess whether the casualty is conscious or not. You can do this touching the casualty's shoulders. Ask them in a loud voice 'Are you alright?'

Figure 3: Checking casualty for consciousness



If there is a response, that is, the casualty squeezes your hand or opens their eyes or moves in some other way, and perhaps speaks, then the casualty is conscious. If there is no response, that is, the casualty does not move or speak, then the casualty is unconscious.

Whether the casualty is conscious or not, do not move the casualty unless:

- they are in danger if they stay where they are, or;
- they need to be moved to receive first aid.



Whether the casualty is conscious or not, call for help. If the casualty is unconscious, an ambulance should be called urgently. Being in an unconscious state can be life threatening.

Conscious person

A person is conscious if they have a state of awareness with the ability to respond to voice and/or touch.

Unconsciousness

Unconsciousness is defined in Guideline 3 from the ARC (28/11/2012) as being "in a state of unrousable, unresponsiveness, where the victim is unaware of their surroundings and no purposeful response can be obtained."

Causes of unconsciousness

The causes of unconsciousness can be classified into four broad groups:

• low brain oxygen levels;



- heart and circulation problems (e.g. fainting, abnormal heart rhythms);
- metabolic problems (e.g. overdose, intoxication, low blood sugar);
- brain problems (e.g. head injury, stroke, tumour, epilepsy).

Combinations of different causes may be present in an unconscious victim e.g. a head injury victim under the influence of alcohol.

Recognition

Before loss of consciousness, the victim may experience yawning, dizziness, sweating, change from normal skin colour, blurred or changed vision, or nausea.

Assess the collapsed victim's response to verbal and tactile stimuli ('talk and touch'), ensuring that this does not cause or aggravate any injury. This may include giving a simple command such as, *"open your eyes; squeeze my hand; let it go"*. Then grasp and squeeze the shoulders firmly to elicit a response.

A person who fails to respond or shows only a minor response, such as groaning without eye opening, should be managed as if unconscious.

Management

If the victim is unresponsive and not breathing normally, follow Australian Resuscitation Council and New Zealand Resuscitation Council Basic Life Support Flowchart (Guideline 8).go to http://resus.org.au

Any unconscious casualty who remains on his or her back is at risk of an obstructed airway through either inhaling fluids, or by having the upper airway blocked by a relaxed tongue. The most effective first aid method of protecting an unconscious casualty's airway is to put the casualty onto their side. This is a position of comfort in which the casualty has their head down and tilted in such a way as to cause any fluid to drain out onto the ground, and the tongue to move away from the back of the airway giving an open airway.



By turning the casualty on the side, gravity will assist foreign material to drain from the mouth. If possible use the casualty's fingers to clear visible material from the casualty's mouth.

In an unconscious casualty, care of the airway takes precedence over any injury, including the possibility of spinal injury. (See ARC Guideline 9.1.6) All unconscious casualties should be handled gently, with no undue twisting or forward movement of the head and spine.

- **1.** Ensure safety of victim and rescuer.
- 2. Assist victim to the ground and position the victim lying on the side. Ensure the airway is open (See ARC



Guideline 4). Do not leave the victim sitting in a chair nor put their head between their knees.

- **3.** Call an ambulance.
- 4. Stop any bleeding promptly (See Arc Guideline 9.1.1).
- **5.** Constantly re-check the victim's condition for any change.
- **6.** Ideally, the most experienced rescuer should stay with the victim

If necessary, it is acceptable to gently move the head into a neutral position to obtain a clear airway. Where possible, an assistant should support the head when an injured casualty is being moved, but time should not be wasted in detailed positioning. The rescuer should not give an unconscious casualty anything by mouth and should not attempt to induce vomiting.

Side Position

- Prepare the casualty by removing bulky and sharp items from pockets
- Kneel beside the casualty and make sure that both legs are straight
- Place the arm nearest to you out at right angles 900 to the body
- Bring the other arm across the chest, and place the hand against the casualty's cheek nearest you
- Using your other hand, grasp the far leg just above the knee and pull it up ensuring the foot stays on the ground and knee bent

Keeping the hand against the casualty's cheek, pull on the far leg to roll the casualty towards you onto their side

Adjust the leg so that both the hip and knee are bent at about right angles

• Tilt the head back using jaw support to make sure the airway remains open and clear

Jaw Support is supporting the jaw at the point of the chin in such a way that there is no pressure on the soft tissues of the neck. To use Jaw Support you fold three finger into your hand (Middle, Ring and Little fingers) having Thumb and Index finger pointed out. You place the knuckle of the index finger under the point of the jaw, the index finger is placed along the jaw line and the thumb grips the top of the point of the jaw.

- Adjust the hand under the cheek to maintain the head tilt
- Maintain observing casualty's breathing and pulse



Objectives of Resuscitation



To work efficiently, the human brain requires a constant supply of oxygen. A person who has stopped breathing will start to suffer irreversible brain damage within 3-4 minutes. It is with this in mind that a Carer aims to provide basic life support to the casualty by administering an adequate supply of oxygen to the casualty until breathing and/or circulation returns, or until professional medical assistance arrives e.g. the ambulance or doctor.

When calling for help the 'phone first' approach is recommended in life threatening situations. This allows for quicker response time for the Ambulance and is especially important for casualties suffering from a serious injury or illness such as a cardiac arrest. Outcomes for these casualties are significantly improved the quicker treatment is given.

NOTE: Where there is more than one casualty, the care of an unconscious casualty has priority.

Calling for help is easy. Any person can call for an ambulance in an emergency situation. The operator is specially trained in receiving emergency calls. If needed, he/she has access to ambulance officers who can give the correct medical advice over the phone if you are unsure of what to do.



DIAL 000 - (On most mobile phones if "**000**" does not work dial "**112**")

You will be asked if you want Ambulance, Fire or Police and then switched through to the appropriate service. The emergency operator (Ambulance, Fire or Police) will then ask for information on the following:

- The suburb;
- The address of the incident/casualty;
- The nearest cross street;
- What is the emergency (car accident, chest pain etc)?
- What is the casualty's condition (conscious/unconscious)?
- Your name and the phone number you are calling from, and;
- Any other information that the operator may request.

DO NOT hang up until instructed to do so by the emergency operator and keep the phone line free in case there is a need for the Ambulance to call you back.

NOTE: When the ambulance arrives, **DO NOT** stop treatment until instructed by the ambulance officers. This allows the ambulance officers time to quickly prepare their equipment.



Casualty Assessment



Assessment of the situation, a methodical approach based on the priorities of first aid establishes the safety of all concerned and the correct treatment to be given to the casualty. This is summarised with the letters **DRSABCD**. The Primary Survey is designed to detect any life threatening conditions that require immediate attention.

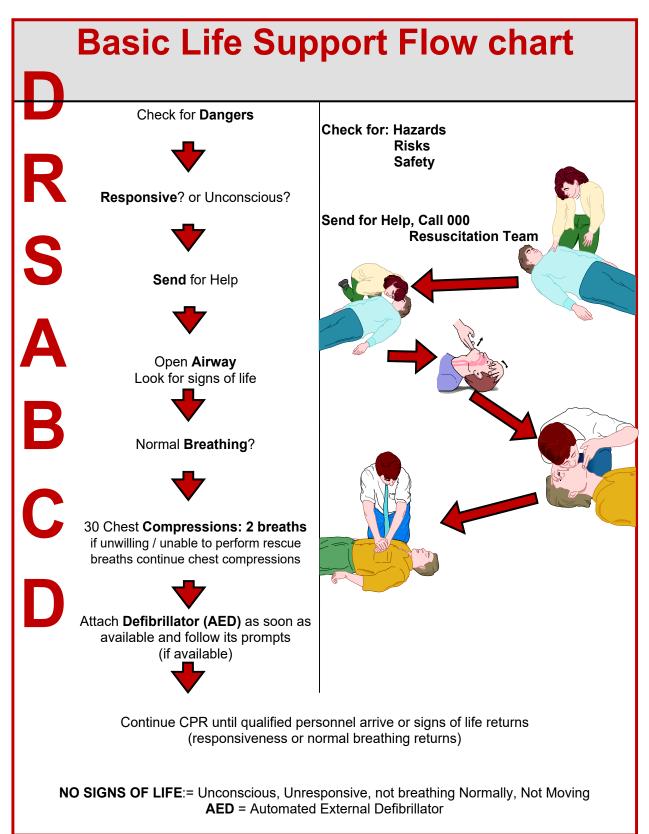
Figure 4: Primary Survey



D	Danger : Is there any danger (actual or potential) to self, bystander or casualty?
	If there is danger, it is preferable to move the danger away from the casualty. In some circumstances this will not be possible e.g. fire etc. In these situations the casualty needs to be carefully moved away from the danger.
R	Response : Is the casualty conscious or unconscious? If unconscious, the casualty needs to be placed in the side position.
S	Send for Help
Α	Is the airway clear or blocked? If blocked, the airway needs to be cleared.
	Opening the airway (look for signs of life - Call 000 /resuscitation team)
B	Normal breathing? (give two rescue breaths if not breathing normally);
С	Give 30 chest Compressions : 2 breaths (if unwilling/unable to perform rescue breaths continue chest compressions
D	Attach AE D as soon as available and follow its prompts (If available) (AED – Automated External Defibrillator)



Figure 5: Basic Life Support Flow Chart





Open airway

1. Place one hand on casualty's forehead;



2. Place finger tips of the other hand under the casualty's chin;

3. Tilt head back gently and lift the chin to open airway;

- **4.** Put on your gloves and remove any visible foreign matter, for example, broken teeth;
- **5.** Check for signs of life, for example, unconscious, not answering questions, not breathing normally, not moving.

Breathing

Breathing is vital to sustain human life. When we breathe in, we use the oxygen from the air to keep our cells and organs alive. To put it very simply, without oxygen, we will die.



Once you have determined whether the casualty is conscious or unconscious, quickly determine whether the casualty is breathing. To do this, you will need to get close to the casualty even if it means getting down onto the floor with them. Place one hand close to their mouth and nose and your other hand on their chest, then place your ear close to their nose while observing at their chest. Look, listen and feel for signs of breathing for about 10 seconds.

- Look for rising of the chest.
- Listen for breathing (either breathing in or out) from the nose or mouth.
- Feel for breathing from the nose or mouth and for rising of the chest.



Figure 6: Checking casualty for breathing



Whether the casualty is breathing or not, call for help. If the casualty is not breathing, an ambulance should be called urgently.



Airway

General Principles



When a casualty is unconscious, all muscles are relaxed. If the casualty is left lying on the back, the tongue, which is attached to the back of the jaw, falls against the back wall of the throat and blocks air from entering the lungs. Other soft tissues of the airway may worsen this obstruction. The mouth falls open but this tends to block, rather than open the airway.

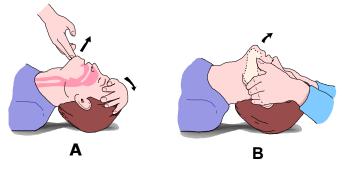
The obstruction to the airway by these soft tissues may be overcome by Backward Head Tilt together with the Chin Lift.



Figure 7: Backward Head Tilt and Chin Lift

(A) Open the victim's airway by tilting his/her chin gently with one hand, while pushing back on his/her forehead with the other hand.

(B) If you suspect a neck injury, put your fingers behind the jawbone just below the ear, and push the jaw forward to open the victim's mouth.





The unconscious casualty is further at risk because of being unable to swallow or cough out foreign material in the airway. This may cause airway obstruction, laryngeal irritation or foreign material may enter the lungs. For this reason, the rescuer should not give an unconscious casualty anything by mouth, and should not attempt to induce vomiting.

If foreign material irritates the vocal chords, a protective reflex muscular spasm (laryngeal spasm) prevents the entry of material into the lungs. This may result in partial or complete airway blockage of the entrance of the trachea (windpipe) with the casualty often making a "crowing" noise during attempts to breath. Airway closure due to the laryngeal spasm can be complete; then there is no "crowing" because there is no airflow into or out of the casualty. That can persist



until the casualty becomes blue or unconscious from the lack of oxygen. When consciousness is lost, spasm usually relaxes.

In an unconscious casualty, care of the airway takes precedence over any injury, including the possibility of spinal injury. All unconscious casualties should be handled gently with no twisting or bending of the spinal column and especially the neck. If it is necessary, move the head gently to obtain a clear airway. Where possible, an assistant should support the head when an injured casualty is being moved, but no time should be wasted in detail positioning.



The casualty should not be routinely rolled onto the side to assess airway and breathing. Assessing the airway of the casualty without turning onto the side (i.e. leaving them on the back or in position in which they have been found) has the advantages of simplified teaching, and taking less time to perform and avoids movement.

The exceptions to this would be in submersion injuries or where the airway is obstructed with fluid (vomit or blood). In this instance the casualty should be promptly rolled onto the side to clear the airway.

The mouth should be opened and turned slightly downwards to allows any obvious foreign material (e.g. food, vomit, blood and secretions) to drain using gravity. Loose dentures should be removed, but well-fitting ones can be left in place. Visible material can be removed by the rescuer's fingers. Cases series reported the finger sweep as effective for relieving Foreign Body Airway Obstruction (FBAO) in unconscious adults and children and more than 1 year.

If and when breathing commences the casualty may be left on side with the appropriate head tilt. If not breathing, the casualty should be promptly rolled on the back and resuscitation commenced as appropriate.

Airway Management

Airway management is required to provide an open airway when the casualty:

- Is unconscious;
- Has an obstructed airway;
- Needs rescue breathing

The techniques most commonly used are Backward Head Tilt in combination with Chin Lift. (See Figure 7)

One hand is placed on the forehead or the top of the head. The other hand is used to provide Chin Lift. The head is tilted backwards (NOT the neck) It is important to avoid excessive force, especially where the neck injury is suspected. When the casualty is in the lateral position, the head will usually remain in this position when the rescuer's hands are withdrawn. Chin lift is commonly used in conjunction with Backward Head Tilt. The chin is held up by the rescuer's thumbs and fingers in older to open the mouth and pull the tongue and soft tissues away from the back of the throat.



Children and Infants

An infant is defined as younger than one year, a child as one to eight years of age.

Maintain an open airway



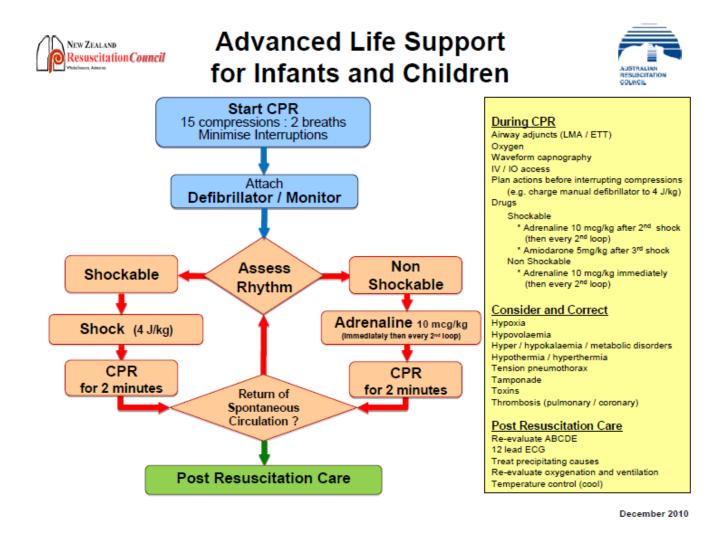
• The upper airway in infants is easily obstructed because of the narrowness of the nasal passages, the entrance to the windpipe (vocal chords) and the trachea (windpipe). The trachea so soft and pliable and may be distorted by the excessive backward head tilt or jaw thrust. Therefore, in infants the head should be kept neutral and maximum head tilt should not be used. The lower jaw should be supported at the point of the chin with the mouth maintained open. There must be no pressure on the soft tissues of the neck. If these manoeuvres **DO NOT** provide a clear airway, the head may be tilted backwards very slightly.



Figure 8: Advanced Life Support for Infants and Children



(as per http://www.resus.org.au - accessed 28/11/2013)





Recognition of Upper Airway Obstruction

Airway obstruction may be partial or complete and may be present in the conscious or the unconscious casualty. Some typical causes of airway obstruction may include, but are not limited to:



- Relaxation of the airway muscles due to unconsciousness;
- Inhaled foreign body;
- Trauma to the airway ;
- Anaphylactic reaction.

The signs and symptoms of obstruction will depend on the cause and severity of the condition. Airway obstruction may be gradual or sudden in onset and lead to complete obstruction within a few seconds. Consequently the casualty should be observed continually. In the conscious casualty who has inhaled a foreign body, for example, there may be extreme anxiety, agitation, gasping sounds, coughing or loss of voice. This may progress to the universal choking sign (clutching the neck with the thumb and fingers). Airway obstruction will cause the diaphragm muscle to work harder in order to achieve adequate ventilations. The abdomen will continue to move out but there will be loss of the natural rise of the chest (paradoxical movement), and in drawing of the spaces between the ribs above the collar during inspiration.

Partial Obstruction

- Breathing is laboured;
- Breathing may be noisy;
- Some escape of air can be felt from the mouth.

Complete Obstruction

- there may be efforts at breathing;
- there is no sound of breathing ;
- there is no escape of air from nose or mouth.

Airway obstruction may not be apparent in the non-breathing unconscious casualty until rescue breathing is attempted.

Management of Foreign Body Airway Management (Choking)

A Foreign Body Airway Obstruction (FBAO) is life threatening emergency. Chest thrusts, back blows or abdominal thrusts are effective for relieving FBAO in conscious adults and children older than 1 year of age, although injuries have been reported with the abdominal thrust.

Therefore, the Australian Resuscitation Council does not recommend the use of abdominal thrusts in the management of FBAO, and instead recommends that back blows and chest thrusts are used.



Assess Severity

The simplest way to assess severity of a FBAO is to assess for ineffective or effective cough.



Effective Cough (Mild Airway Obstruction)

A casualty with an effective cough should be given reassurance and encouragement to keep coughing to expel the foreign material. If the obstruction is not relieved the rescuer should call an ambulance (000).

Ineffective Cough (Severe Airway Obstruction)

Conscious Casualty

If the casualty is conscious, call an ambulance (000) and perform up to five sharp back blows. This should be done with the heel of one hand in the middle of the back between the shoulders blades. Check to see if each back blow has relieved the airway obstruction. The aim is to relieve the obstruction with each blow rather than give all five blows. An infant may be placed in a head downwards position prior to delivering back blows, i.e. across the rescuer's lap.

If back blows are unsuccessful the rescuer should perform five lateral chest thrusts. Check to see if each chest thrust has relieved the airway obstruction. The aim is to relieve the obstruction with each chest thrust rather than give all five chest thrusts. To perform side chest thrusts on adults and children, turn the patient onto their side, place your hands over the ribs just under the arm pit, and give five chest thrusts. These are similar to chest compressions but sharper and delivered at a slower rate. The infant should be placed in a head downwards supine position across the rescuer's thigh. If the obstruction is still not relieved, continue alternating five back blows with five side chest thrust.

Unconscious Casualty

The finger sweep can be used in the unconscious patient with an obstructed airway if solid material is visible in the airway. It is preferable to use the patient's fingers where possible. Call an ambulance and commence CPR.

Breathing

Causes of Ineffective Breathing of Acute Onset

Breathing may be absent or ineffective as result of:

- Direct depression of/or damage to the breathing control centre of the brain;
- Upper airway obstruction;
- Paralysis or impairment of the nerves and/or muscles of breathing;
- Problems affecting the lungs
- Immersion





Assessment of Breathing

After an unconscious casualty's airway is cleared, the next step is to check whether or not the casualty is breathing (more than occasional gasp). The rescuer should:

- LOOK and FEEL for the movement of the upper abdomen or lower chest, and;
- LISTEN and FEEL for the escape from nose and mouth.

Learning Activity 5:

Ń

Answer True or False to the following;

Consciousness can be determined by checking the casualty's skin colour. **True** / **False**

1.3 Assess the casualty and recognise the need for CPR

Physical condition



In order to identify the casualty's condition or evaluate the extent of injuries, a quick and thorough physical assessment is required from head to toe. This is based on signs and symptoms. A head to toe assessment is only done if the casualty is conscious, or if unconscious, is breathing.

Signs and symptoms

Physical assessment can be divided into two parts: signs and symptoms.

A **sign** is something another person can see, hear, or smell, such as vomit, blood, sweating, smoke and fire.

A **symptom** is something the casualty can feel and can tell you about such as headache, blurred vision, dizziness and pain. In other words, you will be relying on the casualty to tell you their symptoms. If the casualty is unconscious, you will have to rely purely on signs and information given to you by witnesses.

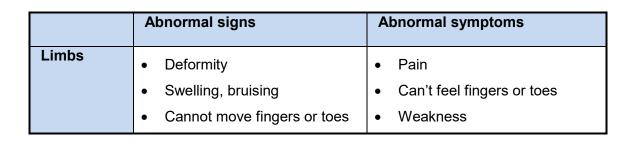
Assessment of the casualty's physical condition should take place quickly yet carefully. Important information can be found by taking the time to thoroughly check the casualty. Start at the head and work towards the feet and pay close attention to the casualty's general appearance and behaviour. Use your gloved hands to:



- gently slide under the casualty's back (if possible) to check for signs of bleeding
- gently feel for swelling, tenderness, wounds, broken bones.

Figure 9: Basic list of abnormal signs and symptoms

	Abnormal signs	Abnormal symptoms
General appearance General	 Pale, grey, flushed Slight tremor to seizure Anxious, tense, confused, 	Feeling confused
behaviour	 Anxious, tense, confused, restless Irrational Disoriented to time or place 	 Premonition ie flashing lights, halos Weakness or can't move or feel limbs
Head	 Cut, bruise, swelling, blood Blue around lips Pinpoint or large pupils Pupils are not equal in size Pupils do not constrict with light Blood or clear ooze coming from ears Blood from nose or eyes Foaming at the mouth 	 Headache Blurred or double vision Dizziness
Skin	SweatingHot or cold to touchRedness	Feels hot or coldPain
Breathing, chest	 Wheezing or laboured Rapid Coughing (particularly blood) Both sides of chest do not move together 	Difficult or painful breathingTight chest
Back, neck Abdomen	Vomiting (particularly blood)	PainNausea, pain
	Protruding organs	Hunger or thirst





Obviously those with appropriate qualifications would be able to do a more comprehensive physical assessment.

Remember; do not move the casualty unless:

- they are in danger if they stay where they are; or
- they need to be moved to receive first aid.

Importance of obtaining a history

As well as assessing the physical condition, it is also vital to obtain as much information as possible surrounding the accident or incident. Sometimes the nature of the illness or injury will become quite apparent from the information and history alone. You can do this by either asking the casualty or any witnesses' questions such as:

- What exactly happened?
- When did this happen?
- How did it happen?

FIRST AID



Learning Activity 6:

Answer True or False to the following;

Ň

- a. An example of a sign is vomiting. True / False
- b. An example of a symptom is bleeding True / False
- **c.** It's normal for clear ooze to spill from the ear but not blood. **True / False**

Secondary assessment of the casualty

During a secondary assessment of the casualty you should use a systematic head-to-toe approach to your assessment, carefully observing each body region for any signs and symptoms of illness or injuries.



Check in order:

- head, face and neck;
- shoulders, arms and hands;
- chest and collarbones;
- abdomen;
- pelvis and buttocks;
- legs, ankles and feet.

During a head-to-toe assessment check each region of the body for both general and region-specific signs and symptoms.



Figure 10: General- and region-specific signs and symptoms

General signs and symptoms (all body regions):					
 Bleeding or bruising Burns Pain, tingling or numbness Rashes 	 Swelling Fractures or deformity Reduced movement Bites or sting marks 				
Region-specific signs and symptoms:					
Head and Face	Abdomen and Pelvis				
Noisy breathingChanges to speech	Rigid stomach musclesLoss of bladder or bowel control				

Changes to hearing	Pregnancy in women	
Changes to vision		
• Skin colour and temperature		
Sweating	Arms and LegsMedical alert bracelet	
Changes to vision Skin colour and temperature		
Broken teeth	Movement in all limbs	
• Fluid from ear, nose or mouth	Strength of all limbs	
	Colour and warmth	
	Back and spine	
Neck	Tingling	
 Artificial airway (stoma) 	Pins and needles	
Medical alert necklace	Loss of movement	
Chest	-	
Noisy breathing		
• Equal rise of chest with breathing		

FIRST AID

Caution – Examination of the neck, back and spine If a neck, back or spinal injury is suspected do not move or roll the casualty unnecessarily. If no neck, spine or back injury is suspected you can assess the back and spine by gently rolling the casualty into the recovery position to look for any signs and symptoms of injury or illness.

Learning Activity 7:



Prioritise the treatment of the following casualties from the most urgent to least urgent by numbering 1 - 4.

A casualty with a sprained ankle	
An unconscious casualty who has no breathing and no pulse	
A casualty with chest pain and shortness of breath	
An unconscious casualty who is breathing	



A copy of the first aid record should accompany the injured or ill person if the person is transferred to a medical service or hospital. A worker should be given



a copy of their first aid record or have access to that record on request. The original copy of the first aid record should be retained at the workplace.

When recording information relating to first aid, consideration should be given to including the following in any record:

- name, address, date of birth and sex of injured or ill person
- contact phone number/s
- basis of employment, for example, full time, part time, casual, visitor
- occupation
- nature of injury or illness, for example, fracture, burn, respiratory difficulties
- bodily location of injury or illness
- how the injury or illness occurred
- time and location of the incident which caused the injury or illness
- details of treatment, for example, the first aid treatment given and/or referral to ambulance, doctor, hospital or elsewhere
- subsequent injury/illness management
- any other relevant details such as witnesses to the incident, and
- name and signature of person completing the record.



Confidentiality of information

Personal information about the health of a worker is confidential. This information includes details of medical conditions, treatment provided and the results of tests. Disclosure of personal information, without that person's written consent, is unethical and in some cases may be illegal.

Health professionals should not be asked to disclose personal information about the health of a worker. The release of such information would contravene the profession's code of ethics.

1.4 Seek assistance from emergency response services



You should always call triple zero (000) for an ambulance for:

An unconscious person – who doesn't wake or respond when shaken



- A heart attack (suspected) pain in the chest, especially if it is crushing or like indigestion and lasts more than five minutes. The pain may spread to the arms and jaw
- **Breathing difficulty** especially if the person is unable to speak more than a few words or has blue lips or mouth
- Abdominal pain if it is severe and undiagnosed
- **Bleeding** any major uncontrolled bleeding or any bleeding that does not stop after at least 10 minutes of continuous pressure
- **Back pain (severe)** after a fall or after sudden onset of back pain if the person is over 50 years of age
- **Burns** which are bigger than the size of a hand or cause severe pain that is not relieved with simple pain-relieving medications, or if the person has difficulty breathing
- **Choking** especially if the person is unable to talk, cry or breathe
- **Convulsions or fitting** or if the person has no history of convulsions (such as epilepsy or brain injury)
- Drowning, near-drowning, diving or scuba accident
- **Stroke (possible)** especially if the person experiences numbness, loss of function of hand, arm or leg, slurred speech, facial droop or severe abrupt headache
- Headache (severe) not the usual kind, with or without loss of function of arm or leg
- A motor vehicle accident if you think someone has been injured
- An industrial accident where a person is injured or trapped
- Vaginal bleeding (severe) with possible or confirmed pregnancy
- A suicide attempt
- **Pain (severe) after a fall or injury** when the person is unable to sit up, stand or walk
- A drug overdose or poisoning whether you know for sure or just suspect an overdose
- **Diabetes** if the person is not fully awake or not behaving normally
- An allergic reaction especially with difficulty breathing or loss of consciousness
- Electrical shock of any kind
- **Trauma (injury)** if it is severe, especially to the head, neck, chest or abdomen for example, if the person was stabbed, shot or impaled, or hit by or ran into an object
- **Meningococcal disease** if symptoms indicate possible infection
- **Hypothermia or heat stress** particularly if the person is collapsed or has an altered conscious state.





How to call triple zero (000)



Once you have decided that the situation is a medical emergency, you will need to call triple zero (000) and ask for an ambulance. You should:

- Get to a telephone if you are providing first aid to the injured person, ask someone else to make the call. Triple zero (000) is a free call
- Call out for help if you are by yourself if no one responds, you may have to leave the sick or injured person briefly to call for an ambulance. It is important to phone for an ambulance as quickly as possible to get the ambulance on the way.

What to expect during the call to triple zero (000)

Try not to panic. Talk slowly and clearly. If you talk too quickly, you may waste time repeating yourself. The typical call will involve:

- The person who first answers the triple zero (000) call is a Telstra operator. Tell them you need an ambulance. They will transfer you to an ambulance call-taker.
- You will be asked to give the phone number you are calling from and the address where the injured or sick person is. The nearest cross-street or intersection.
- You will be asked to describe the problem. You will be asked about the nature of the emergency, the number of people involved; the injured or ill person's gender and age, and whether or not they are conscious or breathing. This information helps to determine the seriousness of the problem and what resources are required.
- While you are answering questions, an ambulance dispatcher will send out an emergency ambulance. You will not hear the dispatcher doing this, but don't be concerned – continue to answer the questions. All the information you provide is relayed to the ambulance paramedics on their way to the emergency. This allows them to prepare before they arrive.
- The call-taker may give you first aid instructions over the phone.
- Please do not hang up until the call-taker tells you that you can.
- If possible, have someone waiting outside to flag down the ambulance. If it is dark, put on an outside light.

Interpreters for calls to triple zero (000)

If you do not speak English or prefer to speak in your native language, you can ask for an interpreter. When the call-taker starts asking you questions in





English, you need to ask for an interpreter. There will be a short wait while the call-taker gets an interpreter on the line to talk to you.

Ask for an interpreter straight away if the sick person is in a life-threatening situation. Try to learn the words 'unconscious', 'not breathing' and 'bleeding' in English and say this when you ring up – before they get the interpreter to ask further questions. This allows them to send an ambulance immediately.

112 emergency number for mobile phones

The GSM (Global System of Mobile Communications) international standard emergency number is **112**, which can only be dialled on a digital mobile phone. It can be used anywhere in the world that has GSM coverage so that you will automatically be put through to that country's emergency number.

People with speech or hearing impairment and calls to triple zero (000)

If you have a speech or hearing impairment and use a telephone typewriter (TTY), PC or modem to make telephone calls, you can call for an ambulance by dialling '**106**'. This puts you through to the text-based National Relay Emergency Call Service. The operator who answers your call relays your typed information to the ambulance call-taker (or police or fire services).

Calling triple zero (000) when you cannot speak

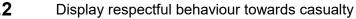
If you call triple zero (000), but cannot speak or make any sounds, the operator will prompt you to dial '55'. The police will either try to call back or send a car to the address you are calling from, to check the situation. If you don't dial 55 when requested, the operator will disconnect your call. This system prevents accidental phone calls from unlocked mobile phones.





2. Perform CPR procedures

2.1 Perform cardiopulmonary resuscitation in accordance with ARC guidelines



Operate automated external defibrillator (AED) according to manufacturer's instructions

2.1 Perform cardiopulmonary resuscitation in accordance with ARC guidelines



Performing Cardiopulmonary Resuscitation (CPR) can help save a life, often the life of a family member or someone you know.

If the patient is not breathing you need to give CPR.

In an emergency situation remember **DRABCD Danger, Response, Airway, Breathing**, **Circulation and Defibrillation**

D Check for Danger

Look for danger to yourself, bystanders and the patient. If able to do so, remove the patient from danger or the danger from the patient without putting yourself at risk.

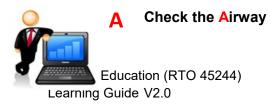
For example: removing the patient away from a fire.

R Check for a Response

Identify if the patient is conscious, by asking the patient questions such as "open your eyes", "can you hear me" while gently shaking their shoulders.

If conscious reassure the patient and seek medical advice

If unconscious carefully roll the patient onto their side, (this is called the recovery position) ensuring that you support the patient's neck. If the patient is in a motor vehicle, gently tilt the head back.







Open airway by tilting patient's head back and lifting the chin. Do not perform a head tilt on babies or injured patients.

Check that the airway is not blocked; this is done by sweeping the mouth with your fingers removing any solid pieces of food or other things, and letting any fluid drain out.

If this simple manoeuvre is unsuccessful in opening a patient's airway you need to get someone to call an ambulance immediately.

B Check Breathing 'look, listen and feel'

Look for the rise and fall of the chest

Listen for breath sounds from their mouth or nose

Feel for the rise and fall of chest

If the patient is breathing keep the patient on their side (recovery position). Remain with the patient while continuing to monitor the patient and check the breathing and pulse every few minutes until Ambulance arrives.

If the patient is not breathing, the first-aider should only roll the unconscious person onto their side if there is foreign material present in the mouth. Open the airway by tilting patient's head back and after lifting their chin, commence rescue breathing as follows:

- **ADULT** pinch the patient's nostrils and seal your mouth over patient's mouth and give 2 full breaths
- CHILD use 2 smaller breaths for a child
- **BABY** seal your mouth over the baby's mouth and nose and give 2 quick puffs

In each case ensure that the chest rises and falls with each breath.

C Check Circulation

First aiders are no longer required to check for a pulse when managing an unconscious patient who is not breathing.

They should commence rescue breathing as follows:

- **ADULT** 2 breaths in about 2 seconds
- CHILD 2 breaths in about 2 seconds
- **BABY** 2 breaths (puffs) in about 2 seconds





Ensure that the patient's chest rises and falls with each breath and commence CPR (Cardio-Pulmonary Resuscitation).

- **ADULT** Position the heel of one hand on the centre of the lower half of breastbone (sternum) while grasping the wrist with your other hand.
- **CHILD** Position the heel of one hand on the centre of the lower half of the breastbone (sternum)
- **BABY** Position 2 fingers in the centre of the breastbone (sternum) just between the nipples

Give 2 breaths to every 30 compressions (at 100 compressions per minute). (Figure 12)

Compress chest to 1/3 of its depth. (Figure 11)

If pulse returns but the person has no breathing continue rescue breathing until Ambulance arrives.

Always stay with the person until help arrives

Keep the '000' (Ambulance dispatcher) informed of persons condition (if possible ask someone to do this for you)

Check for any visible signs of injury and if present;

Control severe bleeding by applying direct pressure to the affected area (take care to not come in direct contact with blood)

Support broken bones (fractures) through immobilisation of the limb Prevent further injuries to the casualty

Figure 30: Position of hands







Figure 31: Give 2 Rescue Breaths





D Defibrillation

If Automated External Defibrillator (AED) is available



1. Turn on AED

Follow the voice and/or visual prompts



Figure 32: Turn on AED



2. Wipe bare chest dry

(Remove any medication patches with a gloved hand)

3. Attach Pads



Figure 33: Attach Pads



4. Plug in Connector, if necessary



Figure 34: Plug in connector





5. Stand Clear

Make sure no-one, including you, is touching the person. Say "Everyone Stand Clear"



Figure 35: Stand Clear



6. Analyse heart Rhythm

Push the "analyse" button, if necessary. Let AED analyse the heart rhythm

7. Deliver Shock

If shock is advised:

- Make sure no-one. Including you is touching the person
- Say, "EVERYONE, STAND CLEAR"



• Push the "shock" button, if necessary.

Figure 36: Deliver Shock







After delivering the shock, or if no shock is advised:

- Perform about 2 minutes (or 5 cycles) of CPR.
- Continue to follow the prompts of the AED. TIPS:
- If at any time you notice an obvious sign of life, stop CPR and monitor breathing and for any changes in condition.
- If two trained responders are present, one should perform CPR while the second responder operates the AED.

Rescue Breathing

If the unconscious casualty has airway opened and cleared, check for signs of life (i.e. unconscious, unresponsive, not moving and no normal breathing), the rescuer must immediately commence Rescue Breathing. Give two initial breaths allowing about one second per inspiration, and then commence chest compressions.

Mouth to Mouth Rescue Breathing

Tilt

Kneel beside the casualty's head. Maintain an open airway.

Blow

Take a breath, open mouth as widely as possible and place over the casualty's slightly open mouth. Whilst maintaining an open airway pinch the nostrils (or seal nostrils with rescuer's cheek) and blow to inflate the casualty's lungs.



Because the hand supporting the head comes forward some head tilt may be lost and the airway may be obstructed. Pulling with the hand on the chin helps to reduce this problem.

Look, Listen and Feel

Look for a distinct rise of the casualty's chest with every breath into their airway. If the chest does not rise, possible causes are:

- Obstruction in the airway (inadequate head tilt, chin lift, or foreign material);
- Insufficient air being blown into the lungs;
- Inadequate air seal around mouth and or nose.

If chest does not rise, ensure correct head tilt, adequate air seal and ventilation. Following inflation of the lungs, lift your mouth from the casualty's mouth and turn your head towards the casualty's chest and listen and feel for air being exhaled from the mouth and nose.

Compressions

Recognition of the Need for Chest Compressions



Rescuers should start chest compressions if the casualty has no signs of life (i.e. unconscious, unresponsive, not moving and not breathing normally). Checking the carotid pulse is an inaccurate method of confirming the presence or absence of circulation. Lay rescuers should not attempt to palpate a pulse to determine whether or not to give chest compressions.

Locating the Site for Chest Compressions

There is insufficient evidence for or against a specific hand position for chest compressions during CPR in adults. The Australian Resuscitation Council recommends the lower half of the sternum as the compression point in all age groups.

Direct visualisation may be used to locate the compression point. For the ease of teaching the lower half of the sternum equates with the "centre of the chest". This is simple method will minimize pauses between ventilations and compressions and may encourage more people to attempt CPR. Avoid compression to the lower limit of the sternum. Compression applied too high is ineffective and if applied too low may cause regurgitation and/or damage to internal organs.

Method of Compression

Infants

In infants the two fingers technique should be used by the rescuer whether they are lay rescuers, healthcare or trained first aid responders in order to minimise transfer time from compression to ventilation. Having obtained the compression



point the rescuer places the pulps of the two fingers on this point and compresses the chest.

Children and Adults

Once you have obtained the compression point, the rescuer places the heel of their hand on this point, with the fingers parallel to the ribs and preferably slightly raised; so that pressure will not be exerted directly on the ribs. The rescuer places their hand securely on top of the first. All pressure is exerted through the heel of the bottom hand and the rescuers body weight is the compressing force. Therefore, the rescuer's shoulder should be vertically over the sternum and the compressing arm kept straight. Casualties requiring chest compressions should be placed supine on a firm surface (e.g. backboard or floor) before chest compressions to optimize the effectiveness of compression and relaxation. The rescuer must avoid either rocking backwards and forwards or using thumps and quick jabs. Rescuers should allow for complete recoil of the chest after each compression.

Depth of Compression



The lower half of the sternum should be depressed by one third of the depth of the chest with each compression. This equates to at least 4-5cm in adults.

Rate of Chest Compressions

Rescuers should perform chest compressions for all ages at a rate of approximately 100 compressions per minute (That means almost 2 compressions per second). This does not imply 100 compressions will be delivered each minute since the number will be reduced by the interruptions for breaths by rescue breathing.

Cardiopulmonary Resuscitation

Cardiopulmonary Resuscitation - (CPR)

Cardiopulmonary resuscitation is the technique of rescue breathing combined with chest compressions. The purpose of cardiopulmonary resuscitation is temporarily to maintain a circulation sufficient to preserve the brain function until specialised treatment is available.

Rescuers should start CPR if the casualty has no signs of life (unconscious, unresponsive, not moving, and not breathing normally). Even if the casualty takes occasional gasps, rescuers should suspect that cardiac arrest has occurred and should start CPR.

Compression Ventilation Ratio

No human evidence has identified an optimal compression-ventilation ratio for CPR in casualties of any age. Interruptions to compressions should be avoided with evidence suggesting that previous compression-ventilation ratios resulted



in too much "hands off time". Evidence also demonstrates that over ventilation occurs even by trained responders.

A universal compression-ventilation ratio of 30:2 (30 compressions followed by 2 ventilations) is recommended for all ages regardless of the numbers of rescuers present. Compressions must be paused to allow for ventilations. This compression ventilation ratio has been selected to:

- Increase the number of compressions;
- Minimise interruptions to compressions;
- Prevent excessive ventilation;
- Simplify teaching
- Maximise skill retention
- Maintain international consistency.

Steps for Resuscitation

Initial steps of resuscitation are:

DRSABCD

- Check for danger (hazards/risks/safety);
- Check for response (unresponsive/unconscious);
- Send for Help;
- Opening the airway (look for signs of life Call 000/resuscitation team);
- Give rescue breathing (give two rescue breaths if not breathing normally);
- Give 30 chest compressions (almost 2 compressions/second) followed by 2 breaths;
- Attach an AED (Automated External Defibrillator) if available and follow the prompts.

When providing 30 compressions (at approximately 100/min) and giving 2 breaths (each given over 1 second per inspiration), this should result in the delivery of 5 cycles in approximately 2 minutes.

Chest Compression Only

In some circumstances, there may be unwillingness or inability to do rescue breathing in these instances the rescuer should do chest compressions only. If chest compressions only are given, they should be continuous at a rate of approximately 100/min.

Multiple Rescuers

When more than one rescuer is available ensure:

• That an ambulance has been called (000)



- All available equipment has been obtained (e.g. Defibrillator)
- Frequent rotation of rescuers is undertaken (approximately every 2 minutes) to reduce fatigue.

Duration of CPR

The rescuer should continue cardiopulmonary resuscitation until:

- Signs of life return
- Qualified help arrives
- It is impossible to continue (e.g. exhaustion);
- An authorised person pronounces life extinct.



Recovery Checks

Evidence has demonstrated that interruption of chest compressions is associated with poorer return of spontaneous circulation and lower survival rates and that both lay and health care professional's experience difficulty in determining presence or absence of pulse in collapsed casualties. Therefore, rescuers should minimise interruptions of chest compressions and CPR should not be interrupted to check for signs of life.

DO NOT PAUSE TO CHECK PULSE.

Resuscitation in late Pregnancy

In the obvious pregnant woman, the unborn infant causes pressure on the major abdominal vessels when she lays flat, reducing venous return (blood flow through the veins) to the heart. The pregnant woman should be positioned on her back with her shoulders flat and sufficient padding under the right buttock to give an obvious pelvic tilt to the left. This allows the unborn infant to move to the left side of the woman removing pressure from the major blood vessels. If you tilted the pelvis to the right the unborn infant would not move to the right because the unborn infant would be resting against the woman's liver and pressure would remain on the major vessels.

Additional notes:

Distension of the stomach may occur when the rescuer either blows too hard or blows when the airway is partially obstructed so that air enters the stomach rather than the lungs. If the stomach is distended, **DO NOT** APPLY TO PRESSURE TO THE STOMACH. If air forced into the stomach, some stomach contents can be forced up into the mouth and airway thus into the lungs. Regurgitation is the passive flow of stomach contents into them mouth and nose. Although this may occur in any person, regurgitation and inhalation of stomach contents is a major threat to an unconscious person. It is often unrecognised because it is silent and there is no obvious muscle activity. Vomiting is an active process during which action causes the stomach to eject



its contents. In resuscitation, regurgitation and vomiting are managed in the same way by prompt positioning on the side and manual clearance of the airway prior to continuing to rescue breathing.



Learning Activity 8:

As part of your learning journey you are to complete the following questions about CPR. If you cannot immediately think of the answers and go back through your workbook until you know the correct response

If the casualty use:	What is the correct response?	What has the incorrect response?
Not breathing but has no signs of obstructions in mouth		
Not breathing but has vomit, fluid or obstructions in mouth.		
Has significant injuries in the mouth and is not breathing		
Is breathing normally		

2.2 Display respectful behaviour towards casualty

Many people query what legal issues a person may face as a result of administering First Aid. It is an expectation that a person administering First





Aid, should be responsible, prudent and act in good faith for the best interests of the casualty, and undertake First Aid 'to the best of their ability'.

As you complete this workbook give consideration to the following 4 main statements.

Consent

Australian law says that a person has control over their own body and a person can bring a charge of assault/battery if touched without consent. Essentially, an injured/ill person has the legal right to refuse any assistance, reject any first aid, ambulance, paramedic, nurse or doctor advice.

The injured or ill person also has the right to see a doctor of his/her own choice at any time.

Implied Consent

In an emergency situation, the law implies consent of the injured or ill person if they are unconscious and seriously injured. This consent applies to conditions that are threatening to the life or long term future health of a person.

A person may take 'reasonable action' even without formal consent in providing first aid to infants and children because they cannot give consent. However, if possible, the consent of a parent or guardian should be obtained.

Duty of Care

Under Australian Law a member of the public or First Aider in the community, has no legal duty of care requiring them to stop and render assistance to an injured/ill person. There are however, instances where the First Aider/member of the community is obliged to stop and render assistance.

However, a driver of a motor vehicle involved in a vehicle accident, is required to stop and render assistance to any injured person involved in that accident, to the best of their ability.

Where an employee is trained and designated as a First Aider in the workplace, that employee would have an obligation to render assistance as required.

When a person trained in first aid has taken responsibility for another individual e.g. Child Minding.

Negligence

A case of negligence would be established if:

- The First Aider owed a 'duty of care' to the injured/ill person;
- The standard of care required by that duty was breached;
- Further injury was sustained.





The further injury was sustained because the First Aider has gone beyond their level of training. A First Aider with basic training could be expected to:

- Use reasonable care in assessing the priorities of the situation in accordance with their training and take steps to call for medical assistance;
- Keep the casualty stabilised until help is available;
- Follow recommended first aid guidelines;
- Not misrepresent themselves or take undue risks.

Learning Activity 9:

Ň

- As part of your learning journey into becoming competent in CPR answer the following questions:
 - **1.** What is your legal obligation if you are directly involved with your vehicle in an accident?

2. What do you understand by the term "Implied Consent"

3. What are the basic acts that can be reasonably expected from you as a First Aider in the workplace?



2.3 Operate automated external defibrillator (AED) according to manufacturer's instructions

Defibrillation

The Australian Resuscitation recommends the use of an AED if available



What is an Automatic External Defibrillator (AED)?

The automated external defibrillator (AED) is a computerized medical device. An AED can check a person's heart rhythm. It can recognize a rhythm that requires a shock. And it can advise the rescuer when a shock is needed. The AED uses voice prompts, lights and text messages to tell the rescuer the steps to take.

AEDs are very accurate and easy to use. With a few hours of training, anyone can learn to operate an AED safely. There are many different brands of AEDs, but the same basic steps apply to all of them.

Why should people who are responsible for operating an AED receive CPR training?

Early CPR is an integral part of providing lifesaving aid to people suffering sudden cardiac arrest. CPR helps to circulate oxygen rich blood to the brain. After the AED is attached and delivers a shock, the typical AED will prompt the operator to continue CPR while the device continues to analyse the victim.

If AEDs are so easy to use, why do people need formal training in how to use them?

An AED operator must know how to recognize the signs of a sudden cardiac arrest, when to activate the EMS system, and how to do CPR. It's also important for operators to receive formal training on the AED model they will use so that they become familiar with the device and are able to successfully operate it in an emergency. Training also teaches the operator how to avoid potentially hazardous situations.

Australian Resuscitation Council Guideline 10.1.3

Public Access Defibrillation (PAD)

The Australian Resuscitation Council recommends that 2 type of people can use the AED. When someone has No Signs of Life and CPR is being performed, and an Automatic External Defibrillator (AED) is available the people who are trained in the use of AED and people who are not trained in the AED may use the AED. It is preferable that the trained person uses the AED. It is recommended that if a person is working in a workplace which has an AED the all staff are trained in the use of the AED.

Treatment Recommendation for using an Automatic External Defibrillator (AED)



The evidence to date supports the premise that early defibrillation delivered within a PAD mode may improve survival following cardiac arrest which occurs



outside of hospital and in public places. Accordingly it is acceptable that PAD programs be implemented wherever feasible adopting the following principles.

- Public Access Defibrillation represents an important link in the Chain of Survival for a person experiencing a sudden cardiac arrest. Any initiative in this area should promote the other links in that chain.
- Defibrillation should preferably be undertaken by trained lay people or health professionals. As trained personnel may not be available immediately, untrained bystanders should also have access to the use of public access defibrillators.
- Programs are needed to support the broader education of the Australian community in emergency response and cardiopulmonary resuscitation (CPR).
- Implementation of Public Access Defibrillation should be developed in partnership with local emergency medical services and provide for data collection and audit of events.

There is no data supporting the efficacy of PAD for cardiac arrests occurring in the home. Furthermore, this recommendation only considers the efficacy and effectiveness of PAD in improving survival from out of hospital cardiac arrest and does not address the specific issues of implementation or cost effectiveness.

Currency and assessment of CPR skills

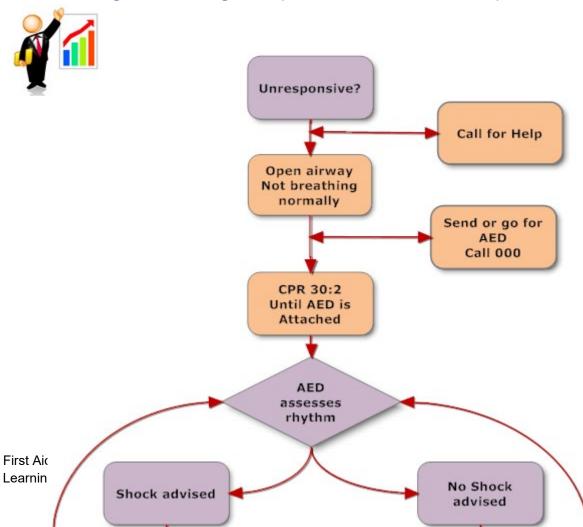
CPR skills performance has been shown to decline rapidly following initial achievement of competency. The Australian Resuscitation Council recommends that CPR skills are reassessed at least annually.



The Australian Resuscitation Council recognises that training organisations are required to assess CPR competency. ARC recommends that assessors be cognisant to the intent of the resuscitation community that any attempt at resuscitation is better than no attempt. As such, assessment should focus on adequate CPR and not on the technicalities of achieving set figures or rates. Focus is on good COMPRESSIONS and effective BREATHS.



Figure 37: AED algorithm (2013 Resuscitation Guidelines)





Secondary Survey



This follows the primary Survey (**DRSABCD**) and after any life threatening bleeding has been treated.

A thorough examination of the casualty is to be completed. The more information the Carer can gather, the better equipped the Carer will be to give the most appropriate treatment. There are four (4) tools used to assist in assessing the casualty in the Secondary Survey. They are:

- Signs
- Symptoms
- History
- Medical alert bracelets.

Signs

What the Carer can see, touch, hear or smell. For example, the casualty is bleeding, has vomited, has noisy breathing etc. These signs are most important to note when the casualty is unconscious and unable to communicate with the Carer.

Symptoms

This is the information provided by the casualty. It is what they tell the Carer e.g. where they have pain, how they feel etc.

History

This has two (2) components. The first is relevant past history, which may include previous illnesses or injuries that have contributed to the current



situation. For example the casualty has a heart condition and now has chest pain or a respiratory problem and is short of breath.

The second component is the current history. This includes what has happened or what has occurred leading up to this current situation. This information will tell you what happened and the type of injuries that could be present. For example, the casualty that fell from the roof of the house would generally have different injuries than the casualty who fell out of a chair. Bystanders and witnesses are often important in establishing the current history.

Further information can also be gathered using - Simple Questions.

- Allergies: Does the casualty have any?
- Medications: What medications does the casualty use?
- Past Medical History: Does the casualty have any previous illnesses?
- Last meal: When did the casualty last eat/drink?
- Event: What events have occurred leading up to the incident?

Medical alert bracelets:

People suffering with known medical conditions e.g. allergies, usually wear a medical alert bracelet so that in case of an emergency a Carer will look for the bracelet and be able to gain important information about the casualty.

Head to Toes Assessment



The Secondary Survey (Head to Toes) is a more thorough examination conducted by the Carer and is carried out for casualties with potential injuries. If the casualty is unconscious, is breathing adequately and has a pulse, the casualty is left in the side position, and the casualty's Airway, Breathing and Circulation (ABC) are checked regularly throughout the secondary survey. The secondary survey is conducted in a methodical manner from which signs, symptoms and history can be established and is started at the head of the casualty.

Head

• Instruct the casualty not to move their head.



- Look for any bleeding, swelling or deformity to the head or face.
- Look for discharge, blood or clear fluids from the ears, nose, eyes or mouth.
- Ask if they have any pain to their head/face.
- Ask the casualty if they are able to clench their jaw and if they have any pain when doing so.

Neck

- Look for any swelling, deformity or bleeding.
- Remind casualty not to move their head.
- Ask casualty if they have any pain to their neck.

Chest (Thorax)

- Look for any deformity, bleeding or swelling to the chest and shoulders.
- Ask the casualty to take a deep breath.
- Listen for any noisy breathing.
- Look at the rise and fall of the chest.
- Ask the casualty if they have any pain or if they are short of breath.

Stomach (Abdomen) and Hips (Pelvis)

- Ask the casualty if they have any pain to the stomach (abdomen) or hips (pelvis).
- Look for swelling, bleeding or bruising.
- Is the stomach (abdomen) bloated (distended)?
- Is the casualty guarding the stomach (abdomen)?

Legs

- Look for deformity, bleeding or swelling.
- Ask the casualty if they have any pain to the legs.
- Does the casualty have numbness or tingling to the legs?
- Is there any loss of feeling or movement to the legs?

Arms

- Look for deformity, bleeding or swelling.
- Ask the casualty if they have any pain to the arms.
- Does the casualty have any numbress or tingling to the arms?
- Is there any loss of feeling or movement to the arms?





Spine

- Ask if the casualty has pins and needles or loss of feeling anywhere.
- Ask the casualty if they have any back pain.
- If the limbs are not injured and you are sure that the casualty does not have a spinal cord injury then, with assistance.
- Gently roll the casualty onto their side whilst supporting the head and neck.
- Gently feel and look for any deformity or bleeding to the back.
- Gently roll the casualty back into their original position.

During the secondary survey, if any serious injuries are found, they should be treated immediately. The Carer must also tailor the secondary survey to the situation and circumstances at the scene. If you do have to treat a serious injury handle the casualty carefully.

Note: If the casualty is complaining of having an injury or complains of numbness or tingling to the arms or legs, **DO NOT** move the casualty wait for the doctor and ambulance to arrive on scene. If possible keep the casualty awake while waiting.

3. Communicate details of the incident



- **3.1** Accurately convey incident details to emergency response services
- **3.2** Report details of incident to workplace supervisor as appropriate
- **3.3** Maintain confidentiality of records and information in line with statutory and/or organisational policies

3.1 Accurately convey incident details to emergency response services





After identifying the casualty's medical condition or injury and the extent of damage, a decision will have to be made as to what kind of further assistance is required, if any.

This is when a decision needs to be made promptly by somebody, usually the supervisor. Not all casualties will need an ambulance.

Let's take a few examples and think about what kind of further assistance will be required for the following:

- a sprained ankle;
- a broken leg;
- an asthma attack, where the casualty has fully recovered after using a Ventolin inhaler;
- a choking episode, where the casualty could not cough, speak or breathe;
- a fall off a ladder, where the casualty has hit their head and blood is oozing from the left ear.

Your answers may include the following:

- A relative can fetch the casualty and take them home or to their local doctor;
- Call an ambulance. The casualty needs to be transferred in a stretcher. If the thigh is broken, there could be major blood loss;
- No further treatment is necessary. Let the casualty rest for a while and then they can resume normal activities;
- Call an ambulance urgently;
- Call an ambulance urgently.

The phone number in Australia for an ambulance is 000, or 112 from mobile phones. This is a call centre style emergency service number. The operator will ask you if you would like the police, fire or ambulance. If you aren't sure what service you will need, don't panic. The operator will help you.

Using relevant communication media and equipment

Communication systems may include but are not limited to:



- telephones, including landline, mobile and satellite phones;
- SMS;
- HF/VHF radio;
- two-way radio;
- flares;



- flags;
- electronic equipment;
- email;
- hand signals.

The equipment you use to alert emergency personnel will depend on where you are and what equipment is available. The most common way of contacting emergency services is to use a landline phone or a mobile phone.

Learning Activity 10:

You have been called to the following:

- **1.** An amputated finger.
- 2. Breathing which has stopped from electrocution.
- **3.** Small laceration to left forearm, with bleeding controlled with pressure bandage and elevation.
- 4. Dislocated finger.

What is the appropriate treatment for each- please write below:









In any first aid situation it is important that you quickly identify if there is need for further help. In all emergency and life threatening situations you should call for help at the earliest possible stage. Additional assistance might be sought from

- Emergency Services (Ambulance, Police, Fire Department);
- a medical practitioner or occupational health nurse;
- the workplace supervisor, work colleagues and bystanders.

Calling '000' Emergency Services

'000' (triple zero) is Australia's primary Emergency Services number and is used to access emergency assistance (Ambulance, Police and Fire Department) from fixed, mobile and payphones, in the first instance.
 '000' is a 24 hour free call service and all calls to 000 are voice recorded.



112 – The digital alternative

112 is the international standard emergency number that can only be dialled on digital mobile phones. The advantages of using 112 are that it can be dialled anywhere in the world and the number is automatically converted to the local emergency service number, it can be dialled on any network coverage area and does not require a SIM card or the entry of a security PIN number to access and gain connection to Emergency Services. You should check with your mobile service provider if you have any concerns about the correct number to call in an emergency.

106 is the text-based emergency call service for people with a hearing or speech impairment. This service operates using a TTY (teletypewriter) and does not accept voice calls.





106 – The Text Emergency Call Service

If you have a hearing or speech impairment and need to contact Emergency Services, you can lodge an emergency text call by calling 106 directly through your TTY (teletypewriter/textphone) or computer with modem.

For more information, contact Australian Communication Exchange (ACE) on 1800 555 660 (Voice) or 1800 555 630 (TTY).

Both 112 and 106 are secondary emergency service numbers because they are for use only in connection with particular technologies.

Lodging a call to Emergency Services

You should only call an emergency number in a time critical emergency.



- 1. Call 000 (or 112 from digital mobile phones) and tell the operator which service you require, for example, Ambulance, Police, or Fire.
- **2.** Give a clear description of the address where the accident has occurred.
- 3. Give the name of the nearest cross street or landmark.
- **4.** State the type of emergency, for example, car accident.
- **5.** State the number of casualties, for example, two adults and one child.
- **6.** Describe any special circumstances such as power lines down or flammable fluid spills.
- 7. Provide your contact phone number.

Caution – Calling Emergency Services **DO NOT** hang up the phone until directed to do so by the Emergency Services operator.

Alternative ways to call for help include:

- two way radio;
- flags or flares;
- yelling;
- email;
- notifying others to call for help;
- distress beacons;
- personal distress alarms;
- SMS.



Learning Activity 11:

Read below the demonstration on how to lodge a call for help to Australia's emergency services.

The phone rings and a 000 operator picks up.

Caller: Ambulance.

Phone operator: What is the exact address of the emergency?

Caller: 12 Smith Street, Cammeray Hills NSW.

Phone operator: What phone number are you calling from?

Caller: 0401 767 135

Ambulance operator: What is the problem? Tell me exactly what happened.

Caller:My husband was fixing the roof and he has fallen
two stories to the ground.

Ambulance operator: Is he conscious?

Caller: No, he has not moved and won't answer me.

Ambulance operator: Is he breathing?

Caller: Yes, I can see that he is breathing.

Ambulance operator: Is you husband the only casualty?

Caller: Yes.

Ambulance operator: An ambulance has already been dispatched and is on its way.

After reading the text for this call for assistance write down in your own words what occurred i.e. What was the person asked for in the first instance, then what information did they need to relay and what questions did the emergency personal ask?







1	





Once you have connected with the emergency service's operator and requested an ambulance, hold the line to tell them details such as:

- location of casualty providing the exact address is best, but if you aren't sure of this, give some landmarks or nearest cross streets, and some directions;
- number of casualties;
- nature and extent of illness or accident include the physical condition of the casualty, and any relevant signs and symptoms (see below for more details);
- the number of the phone you are using;
- your name.

Then hold the line to answer any further questions and provide any other relevant details, such as damaged power lines.

The casualty's condition

When providing details of the casualty's condition, include the following



- Colour What colour is the casualty's skin?
- Conscious state Is the casualty conscious?
- **Breathing** Is the casualty breathing? If not, have rescue breaths and CPR commenced?
- **Bleeding** Is the bleeding controlled? Is it bright red spurting blood or dark red flowing blood?
- Pupils Are the pupils of equal size and reacting to light?
- **Shock** Are there signs of shock (pale, sweaty, nauseous, cold)?
- **Movement** Does the casualty have coordinated movement?
- Can the casualty feel and move limbs, if conscious?
- Anything **abnormal** (such as bruising, a bone sticking out or swelling).

Learning Activity 12:

Answer True or False by circling the correct answer



a. You should tell the 000 operator whether you need an ambulance, police or fire service. **True / False**



b. Conveying physical details of the casualty to 000 isn't important because the paramedics will judge for themselves when they arrive. **True / False**

The information that you have obtained about the casualty's condition and the nature of the incident should be passed on to relevant personnel.

Handing over to Emergency Services personnel

On the arrival of the ambulance:



- continue first aid management and observation of the casualty until the ambulance officer is ready to assume care
 - **a.** provide as much information as possible, this may include:
 - **b.** the nature of the accident to the time you arrived on the scene
 - c. the types of first aid management provided
 - d. the duration of any Basic Life Support
- provide any other information that is asked for, including your contact details
- stay and assist the ambulance officer if requested to do so.

3.2 Report details of incident to workplace supervisor as appropriate

Documentation may include:

ý

- Injury report forms
- Workplace documents as per organisation requirements

Documentation may include recording: time; location; description of injury; first aid management; fluid intake / output including fluid loss via blood, vomit, faeces, urine; administration of medication including time, date, person administering, dose; vital signs.

It is vital that any first aid management, which occurs in the workplace, is recorded in a Record Logbook.

The Record Logbook should include the following information:

- name of casualty;
- witnesses;



- detailed description of incident;
- time and date;
- outcome;
- signature of those involved, and their position;
- management comment and recommendations;
- follow up.

This record would be sent to management who would then be expected to read and follow up on the incident, including making recommendations to prevent or minimise the incident from occurring again. The record would be kept on the premises for future reference.

Physical condition

When you are recording the details regarding the physical condition of the casualty, you need to write objectively, not subjectively, and include observation of the facts i.e. the signs and the symptoms.

Case Study: sprained ankle



The correct way

An example of writing objectively about the casualty's physical condition is:

At 1.10 pm 1/11/02, (casualty's name) was found by (your name) lying on the floor of the tearoom holding his left ankle. (Casualty's name) stated that he tripped over his untied shoe laces and that his left ankle was very painful. On inspection, his left ankle was swollen and slightly bruised. (Your name) called for help and (first aider's name) arrived on the scene.

The incorrect way

Do not use emotive language when reporting on the casualty's physical condition.

Below is an example of how not to write:

At 1.10 pm 1/11/02, I went to the tea room because I was hungry and I was late for my lunch break and I found (casualty's name) lying on the floor. I panicked and ran for help because I thought (casualty's name) had broken his leg. When I returned, I had calmed down and saw that his left ankle was huge. My supervisor took over the first aid management as I wasn't sure what to do.



Changes in conditions

Any changes in the casualty's physical condition also need to be reported, again in an objective manner.

Case Study: Asthma attack



Here is an example of documenting changes in the physical condition:

At 11.20 am 12/5/02 (casualty's name) was having difficulty breathing, was wheezing and very distressed. She was pale and clammy. (Your name) sat her in a chair and called for help. At the same time (your name) loosened her clothing, opened the window and turned on the fan. Suddenly, (casualty's name) started turning bluish around her mouth.

Management

It is important that all management given to the casualty is fully documented.



Sprained ankle

(Casualty's name) was helped to the closest chair, his shoe removed, left foot elevated, and an ice pack and a compression bandage were applied to the left ankle.

Asthma attack

(Casualty's name) stated she needed her Ventolin inhaler which (first aider's name) gave to her. (Casualty's name) took four puffs of the inhaler. One minute later, she turned very blue around the mouth and collapsed. She was found to be unconscious and not breathing.



Response to management

In addition to reporting on the physical condition of the casualty and first aid management, you will also need to report on the response to the first aid management. In other words, what happened after first aid was given. Was the first aid management effective? Did the casualty recover?





We will use the two scenarios above to document the first aid management response.

Sprained ankle

(Casualty's name)'s wife was telephoned. She arrived at the workplace at 1.55 pm with a pair of crutches to take (casualty's name) to the local doctor and to have an X-ray. (Casualty's name)'s wife was directed to keep the ice pack on for 20 minutes every two hours for the first 24 hours and for 20 minutes every four hours for the next 24 hours, as well as to keep the left foot elevated and leave the compression bandage in place. She was also asked to phone the workplace the next day to let staff know about (casualty's name)'s condition. Management has also been informed and this report filed.

Asthma attack



(Your name) ran to call an ambulance while (first aider's name) commenced expired air resuscitation. The ambulance arrived at 11.35 am and took over the resuscitation. The ambulance crew took (casualty's name) to Accident and Emergency at St Paul's General Hospital. The family has been informed and will phone us later with an update of (casualty's name)'s condition. Management has also been informed and this report filed.

Learning Activity 13:

Answer True or False by circling the correct answer



- **a.** The outcome is the most important thing to focus on when reporting. **True/False**
- **b.** After filling out the accident/incident report, submit it to management. **True/False**

3.3 Maintain confidentiality of records and information in line with statutory and/or organisational policies



A degree of confidentiality exists in all professions and organisations and, it has legal consequences for everyone involved in the medical/health profession. It is very important that you understand what confidentiality means and how you should handle various situations.



What do you think is meant by the term 'confidentiality'? What does it mean when someone tells you something 'in confidence'? Has there been a time in your life when you told somebody something in confidence and later found you couldn't trust them? Has there been a time when you have heard gossip about someone or something they have done which you felt they might not want spread around?

'Confidentiality' is another way of saying 'secrecy'. Confidentiality requires trust. If someone wants something to remain confidential, they want it to be kept a secret or treated as a private matter. As someone who is privy to confidential information, no matter what it might be, you are in a position of trust. As a first-aider this goes beyond your personal needs. You are trusted not to divulge confidential information to anyone, unless directed by management or given permission to do so by the patient.

You can breach confidentiality by:

- showing or giving records to people within or outside the workplace without the patient's written consent;
- talking about patients or leaving records lying about;
- discussing a patient with someone over the telephone.

National Privacy Act



One of the most important pieces of legislation for the health industry is the National Privacy Act. The Privacy Act (Private Sector) 2000, formally the Privacy Act 1988, includes the 10 National Privacy Principles that became effective from December 2001. These principles set the minimum standard that health service providers must abide by when they collect, use, disclose and store patient information.

Whether you are working in the public sector or the private sector, if you are working with patient records, either clinical or financial, you are legally obligated to observe confidentiality and privacy of information according to the Privacy Act.

The Internet site to visit for these principles is http://www.privacy.gov.au/health/pubs/index.html#2



Privacy principles

The NSW Privacy Committee Data Protection Principles outline the privacy principles that all NSW community services organisations must follow. These guidelines are to protect client rights and ensure that only essential information about the client is collected.

- 1. Collect information directly from the client, except if:
 - a. the client agrees otherwise;



- **b.** the other information source also follows these principles.
- **2.** Make sure the client knows whether it is compulsory or optional to give the information.
- **3.** Make sure the client knows the purpose for collecting the information.
- **4.** Make sure the client knows who you usually pass information on to (and who they usually pass it on to).
- **5.** Make sure the client can look at and correct their information (unless the law stops this), and the client knows this right.
- **6.** Make sure the information is actually needed for your purpose.
- 7. Limit your use of the information to:
 - **a.** the purpose you collected it for;
 - **b.** other purposes with the client's consent;
 - c. preventing harm to the client or someone else.
- **8.** Make sure the information is accurate, up-to-date and complete.
- **9.** Make sure the information is protected from unauthorised access.
- **10.** Make sure the information is kept for no longer than necessary for the purpose it was collected for.
- **11.** Make sure that the information is only used or disclosed with the freely given, clear written consent of the client if the information concerns their:
 - **a.** ethnic or racial origin;
 - b. political opinions;
 - c. religious or philosophical beliefs;
 - **d.** trade union membership;
 - e. health;
 - f. sexual life.



You can get more information from Lawlink NSW: A Brief Summary of the Information Protection Principles or go to: <u>http://www.ipc.nsw.gov.au/privacy/public media/privacy individ public/indiv i</u> <u>nfo protect principles.html</u>



Bibliography

Reporting an incident

https://www.worksafe.qld.gov.au/injury-prevention-safety/incidents-and-notifications

Approved code of practice for first aid in workplace:

http://www.safeworkaustralia.gov.au/sites/swa/about/publications/pages/first-aid-in-the-workplace

<u>http://www.avru.org/faqsnakes.html</u> Highly recommended sites for current and additional information

http://www.redcross.org.au/ourservices acrossaustralia firstaid default.htm

http://www.cfmeuvic.com.au/downloads/ohs-checklist/first-aid-kit.pdf

http://www.youtube.com/watch?v=Da-pc86rJdl

http://www.youtube.com/watch?v=5NnQidV7CEM

http://www.safework.sa.gov.au/uploaded_files/FSCoPFirstAidWorkplace.pdf

This American video is an excellent practical demonstration related to the first aid treatment of a seizure patient

http://www.youtube.com/watch?v=fY5OG3DURBA&feature=channel

Treatment for shock

http://www.youtube.com/watch?v=jp32sTgeFTY&feature=channel

http://redcross.e3learning.com.au/content/legal/SA.pdf

http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Shock - VIC

http://www.commerce.wa.gov.au/worksafe/first-aid-0

https://www.commerce.wa.gov.au/sites/default/files/atoms/files/code_first_aid_0.pdf – Western Australia

http://www.allenstraining.com.au/f.ashx/downloads/ACT-codes-of Practice.pdf - ACT

http://www.worksafe.vic.gov.au/wps/wcm/connect/wsinternet/WorkSafe/Home/Forms+and+ Publications/Compliance+Code/ –Victoria

<u>http://www.workcover.nsw.gov.au/newlegislation2012/general-risk-</u> management/Pages/first-aid.aspx – NSW

http://worksafe.tas.gov.au/industry and safety/topics/subject/first aid - Tasmania

http://www.allenstraining.com.au/f.ashx/513651.pdf – Northern Territory



http://www.seton.net.au/resourcecenter/first-aid/australian-first-aid-state-legislation.html - This one provides a link to all by clicking on state initials

http://www.youtube.com/watch?v=AGznNGtT4xw&feature=related