

#### **LEARNER GUIDE**

HLTAID009 Provide cardiopulmonary resuscitation



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#### Welcome

CPR Participant Guide.

The Guide is designed in a way to provide simple, relevant, and useful first aid information. It will not only meet the requirements of this unit of competency, but also assist you beyond this course as your own quick reference guide to first aid.

The Guide has four (4) main parts:

Part 1 - Unit of Competency

Part 2 - First Aid Topics

Part 3 - Quick Guides

Part 4 - Relevant Forms and Documents

#### Part 1 – Unit of Competency

This part of the Guide presents a Unit of Competency in terms of performance criteria in a simple and easy to understand way. It is a quick overview before you go into detail.

#### Part 2 - First Aid Topics

The topics are presented in an easy to follow and user-friendly format, so you **understand**, **remember** and **find** first aid information quickly.

Each topic is presented in traffic light colours:

**RED** section explains what you need to remember/know.

AMBER section explains what you need to do/manage.

**GREEN** section explains your Plan "B"/contingency.

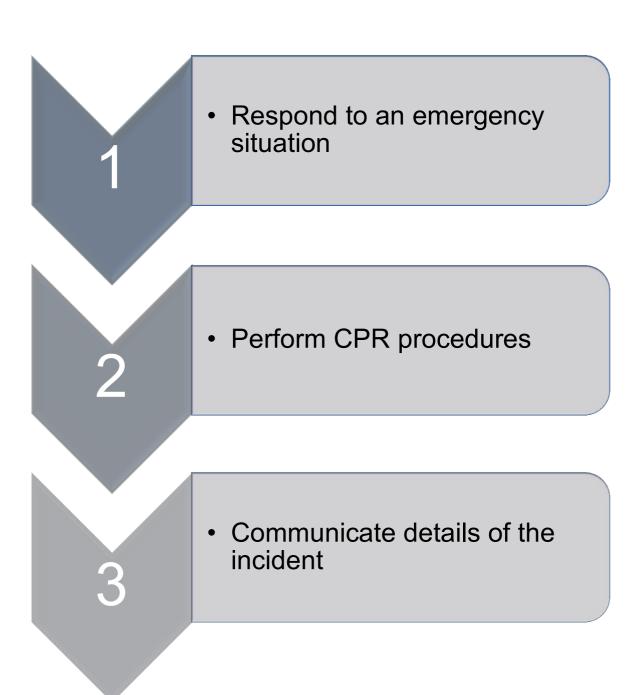


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# HLTAID009 Provide cardiopulmonary resuscitation

To provide cardiopulmonary resuscitation please follow the steps below:



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1	asic Life Support RSABCD Action P	lan	OOO EMERGENCY					
	Dang	ers?						
D	Ensure area is safe to you, o	thers and the casualty	, with					
	Respor	nsive?						
R	NO RESPONSE	RESPONSE	<b>6</b>					
	Send for help	Check for injuries, make comfortable, monitor	unk.					
	Send for							
S	Send for help: Call or ask s (000) for an a <b>If on your own</b> place cast before mak	OOO EMERGENCY						
	Open A	Airway						
		Open mouth:						
	Leave on the back	Place in Recovery Position and clear airway						
	Normal <b>Br</b>	eathing?						
R	Check for breathing: NOT BREATHING NORMALLY	look, listen and feel BREATHING NORMALLY						
	Place on back, start CPR	Place in Recovery Position and monitor						
	Start	CPR						
C	30 compression	ons <b>2</b> breaths						
D	Attach <b>Defibr</b>	illator (AED)	<u> </u>					
U	Apply defibrillator and	d follow the prompts						

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#### Cardiopulmonary Resuscitation Chart

CPR	Adult	Child (1-8)	Infant (up to 1)					
Opening the Airway - Chin Lift, Head Tilt	Full	Full	Neutral					
Ratio Compressions to Breaths	30:2 30 compressions and 2 breaths	30:2 30 compressions and 2 breaths	30:2 30 compressions and 2 breaths					
	1/3 chest depth	1/3 chest depth	1/3 chest depth					
Compressions	1/3							
	Should be smooth							
	Controlled - the same time to compress and release the chest.							
	The First Aider should minimise interruptions of chest compressions, CPR should not be interrupted to check for response or breathing. Interruptions to chest compressions are associated with lower survival rates.							
	Adult	Child (1-8)	Infant (up to 1)					
Pressure	Heels of 2 hands	Heels of 1-2 hands	2 fingers					
Hand Positioning	Lower half of sternum in the centre of the chest	Lower half of sternum in the centre of the chest	Lower half of stern in the centre of the chest					

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#### 1. What is First Aid





**First aid** is the initial treatment given to the ill or injured until the medical treatment arrives or is available.

# MEMBER Krow

First aid is usually provided by First Aiders, people who are trained to provide the very first lifesaving treatment to someone who is ill or injured.

The aims of first aid are to:

- Promote a safe environment;
- Preserve life:
- Prevent injury or illness from becoming worse;
- Help promote recovery; and
- Provide comfort to the ill or injured.

DO Manage A First Aider should:

- **1.** Assess the situation quickly.
- 2. Identify the nature of the injury or illness as far as possible.
- **3.** Arrange for emergency services to attend.
- **4.** Manage the casualty promptly and appropriately.
- 5. Stay with the casualty until handing over to emergency services.
- **6.** Give further help if necessary.

- Call Triple Zero (000) for an ambulance.
- Ask bystanders to assist if they are trained First Aiders.
- Learn first aid.

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#### 1.1 Principles of First Aid

WHAT is it?



Principles of first aid rely on the fact that any attempt to provide first aid is better than no attempt on first aid at all.

First aid knowledge and skills will prepare you to manage a casualty who becomes ill or has been injured.

The benefits of first aid:

- Saves lives, by knowing what to do;
- Reduces pain, disability and discomfort by giving correct first aid management;
- Increases safety awareness at home, work and on the road;
- Reduces accidents by increasing your awareness of safety procedures and equipment; and
- Reduces compensation.

The four (4) aims of first aid are to:

- 1. PRESERVE LIFE.
- 2. PREVENT FURTHER INJURY.
- 3. PROMOTE RECOVERY.
- 4. PROTECT THE UNCONSCIOUS.

Manage

When faced with a first aid situation the formula to follow is:

- **1.** Assess the situation quickly.
- **2.** Decide on first aid management.
- **3.** Arrange medical aid if required.

PLAN "B"
Contingency

Call Triple Zero (000) for an ambulance.

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#### 1.2 First Aiders Code of Conduct

WHAT is it?



Code of conduct is a set of rules outlining the norms, rules and responsibility of a First Aider.

EMEMBER Krow As a First Aider you should always treat a casualty with respect regardless of their race, age, religion or gender.

The casualty may be feeling anxious and scared about what has happened to them, always give reassurance to calm them by giving emotional support to help reduce their anxieties.

If the casualty is a child, always ensure that they feel safe, secure and supported. You can do this by talking to them in an age-appropriate way with a gentle calm tone to your voice. Reassurance is very important when dealing with children. Use a calm voice, make eye contact (if culturally appropriate) and inform them of your actions.

#### The Unconscious Casualty

An unconscious casualty cannot communicate to tell you what is wrong. Depending on the level of consciousness you may be able to develop an idea of what is wrong by the casualty's reactions to a stimuli or movement.

Unconscious casualty(s) should be treated as if they are conscious, they may still be able to hear what you are saying. Tell them what you are going to do, but do not discuss anything that you would not discuss if the casualty were conscious, for example comments about their injuries or appearance.

- Be respectful and empathetic (understanding), provide reassurance.
- **2.** Develop a rapport with them.
- **3.** Always tell the casualty what you are doing and your plan of action.
- **4.** Ask for permission before entering their personal space.
- **5.** Enlist their assistance and tell them how they can help.
- **6.** Treat the casualty how you would wish to be treated yourself.

PLAN "B"
Contingency

 There is no plan "B" in this case – always adhere to the First Aiders Code of Conduct.

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#### 1.3 The DRSABCD Action Plan

WHAT is it?

The DRSABCD Action Plan is an acronym of seven (7) letters that represents an action plan for a First Aider to manage a casualty in an emergency situation.

# EMEMBER Krow

- D Danger
- R Response
- S Send for help
- A Airway
- **B** Breathing
- **C** Cardiopulmonary Resuscitation (CPR)
- D Defibrillation

**UO** Aanage

- **D** Check for danger to you, bystanders and the casualty: by looking, listening and using your sense of smell.
- **R** Check for response: ask their name and squeeze their shoulders.
- **S** Send for help: call Triple Zero (000) for an ambulance or ask a bystander to make the call.
- A Open mouth. Check for foreign materials. If YES place in recovery position and clear the airway with fingers. If NO leave on back.
- **B** Open airway with a head tilt and chin lift. Check for breathing: look, listen and feel. If breathing place or leave in the recovery position.
- C If not breathing. Start CPR: 30 chest compressions: 2 breaths. Continue until help arrives.
- **D** Defibrillation: apply defibrillator and follow voice prompts.

PLAN "B"
Contingency

Call Triple Zero (000) for an ambulance.

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#### 2. First Aid Legislation

# WHAT is it?

First Aid Legislation is a set of laws and rules made by the government which will apply to you when providing first aid.

# EMEMBER Know

First aid is regulated by the law on three (3) levels:

- Workplace level by your employer.
- State level by the state legislation:
  - First Aid Code of Practice
  - Work Health Safety Act; and Regulations.

You need to know where to **access** these documents and **familiarise** yourself with the content of the legislation documentation.

#### Links:

www.safeworkaustralia.gov.au

#### Always:

- 1. Act in a reasonable manner.
- 2. Adhere to your level of training.
- 3. Follow your company's policies and procedures.
- **4.** Ensure that your first aid certification is maintained and current.
- **5.** Gain consent prior to helping casualty.
- **6.** Document the incident and first aid management.
- **7.** Act under the relevant legislation.
- 8. Act under codes of practice.

PLAN "B"
Contingency

There is no plan "B" in this case - always obey the law.

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#### 2.1 Consent

# WHAT is it?



Consent is permission or agreement by your casualty to be treated by you.

In first aid, consent should always be obtained from a casualty where possible prior to applying first aid. Treatment given without the person's consent may constitute as an assault.

There are two (2) different types of consent:

- 1. Implied; and
- **2.** Expressed.

**Implied (taken as given) consent** is when the casualty is unconscious (or when the casualty is speaking a language you don't understand) and is unable to give you their expressed consent.

**Expressed consent -** when oral or written permission is given by a conscious casualty requiring first aid treatment.

#### NOTE:

- If the casualty is under 18 years it is considered to be implied consent, but where possible obtain the consent of a parent or legal guardian;
- In the case of a child care or education centre, parental/caregiver consent is usually given in a written form when the child is enrolled;
- When a casualty cannot verbally communicate, body language and other nonverbal cues are used instead. In other words, if the casualty doesn't let you help, that means "NO"; and
- A person has the right to REFUSE treatment.

- 1. Obtain consent from a casualty where possible before applying first aid.
- **2. Obtain** consent of a parent or legal guardian, if the casualty is under 18 years of age.
- 3. Implied consent applies to the unconscious casualty.

PLAN "B"
Contingency

There is no plan "B" in this case – obtain consent where possible.

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#### 2.2 Duty of Care

### WHAT is it?



Duty of care is a legal obligation for you as a First Aider to protect yourself and your casualty when providing first aid.

# MEMBER

When a First Aider has made the decision to provide first aid to a casualty and they have commenced the treatment, this means that they are committed to provide a duty of care to the casualty.

Duty of care in first aid means that you will provide reasonable treatment to the casualty to the best of your ability and to the level of training you have had. The First Aider is committed to providing duty of care until:

- Another or more experienced First Aider takes over;
- Medical aid arrives;
- You are physically unable to continue to provide first aid; or
- The situation becomes unsafe to do so.

#### NOTE:

A duty of care can be breached by either action or inaction (for example; if you do nothing and the person in your care gets worse).

In the workplace the employer has a duty of care to ensure that appropriate numbers of First Aider(s) have been appointed.

- 1. When giving first aid, stay within the scope of your training.
- 2. Once you commence giving first aid, you automatically take on a duty of care.
- **3.** Complete required documentation and keep it confidential.
- **4.** Maintain your skills and knowledge.
- **5.** Maintain first aid kits and equipment in the workplace.

PLAN "B"
Contingency

 There is no plan "B" in this case – always provide a duty of care to your casualty.

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#### 2.3 Respectful Behaviour





Respectful behaviour is the morally correct conduct by a person providing first aid.

As a First Aider you will need to act in a professional and respectful way at all times.

This basically means - treat others as you would like to be treated, by:

- Obtaining consent and introducing yourself;
- Treating them with dignity and respect;
- Being compassionate;
- Using a calm voice;
- Protecting their privacy and confidentiality; and
- Establishing a rapport.

Respectful behaviour also includes culturally appropriate behaviour. A person who is culturally aware can communicate sensitively and effectively with people who have different languages, cultures, religions, genders, ethnicities, disabilities, ages and sexualities. Cultural awareness and considerations may include:

- Appropriate communication;
- Body language;
- Eye contact; and
- Treatment by male or female person and so on.

Respectful and culturally aware First Aiders build trust which leads to improved outcomes in establishing good rapport with their casualty.

- 1. Treat your casualty with dignity and respect at all times.
- **2.** Treat your casualty in a culturally appropriate way at all times.

PLAN "B"
Contingency

There is no plan "B" in this case – always be respectful toward your casualty.

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#### 2.4 Own Skills and Limitations

WHAT is it?



Limitation is a form of restriction where you provide first aid within the scope of your first aid training.

# EMEMBER

The first aid you provide as a First Aider will be restricted by:

- Scope of your training this means what you have learnt in terms of procedures, actions and processes you will be able to deliver. If you have not learned how to use, for example, oxygen equipment you would not be able to administer oxygen to a casualty;
- Your level of confidence this means the more confident you are in providing first aid the more proficient you become;
- Your company's policies and procedures this means you always need to know and apply your company's policies and procedures. At any point in time when providing first aid you need to be within the boundaries of your company's policies and procedures; and
- Law this means the law is very strict in what you can and can't do as a First Aider. Ensure you fully understand the law.

- 1. Maintain your skills and knowledge keep your first aid certification current by refreshing your CPR skills every twelve (12) months and volunteering.
- **2.** Always stay within the skills, knowledge and limitations of your training and manage a casualty to a standard of care that is appropriate to your level of training.

- Seek assistance from health professionals.
- Expand your skills and knowledge.
- Enrol into a first aid course.

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# 2.5 Australian Resuscitation Council (ARC) Recommendations

## WHAT is it?

The Australian Resuscitation Council (ARC) is a voluntary co-ordinating body which represents all major groups involved in the teaching and practice of resuscitation.

# EMEMBER Know

"The Australian Resuscitation Council produces Guidelines to meet its objectives in fostering uniformity and simplicity in resuscitation techniques and terminology.

Guidelines are produced after consideration of all available scientific and published material and are only issued after acceptance by all member organisations. This does not imply, however, that methods other than those recommended are ineffective." *ARC website*.

The First Aider should always provide first aid within the ARC recommendations and guidelines.

**10.1 Basic Life Support** - ARC Guideline recommends for cardiopulmonary resuscitation (CPR) training to be refreshed every twelve (12) months for those who do not perform CPR on a regular basis.

#### DO Manage

- 1. Access ARC website: <a href="http://resus.org.au/">http://resus.org.au/</a>.
- 2. Read the Australian Resuscitation Council Guidelines:

No.10.1 - Basic Life Support.

**No.5** – Breathing.

**No.6** – Compressions.

**No.7** – Defibrillation.

No.8 - Cardiopulmonary Resuscitation.

- **3.** Link: <a href="http://resus.org.au/guidelines/">http://resus.org.au/guidelines/</a>.
- **4.** Enrol into a HLTAID009 Provide cardiopulmonary resuscitation course next year.

### PLAN "B" Contingency

Become a volunteer to stay current in your first aid skills.

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#### 2.6 Privacy and Confidentiality

# WHAT is it?



Privacy and confidentiality are legal terms that relate to your casualty being free from intrusion; as well as your restriction from releasing any information about your casualty to a third party.

# EMEMBER

Your casualty, as any other person, has a right to privacy and confidentiality. It is your duty and legal responsibility to protect your casualty's privacy at all times.

When providing first aid, your unconscious casualty may be in a position when they are most vulnerable due to the nature of the injuries as well as their circumstances.

In today's world, almost everyone uses their mobile phones to take pictures in public.

#### Do not:

- SMS information of the casualty to any third party;
- Verbalise information of the incident and the casualty to any third party;
- Take personal pictures of the casualty; and
- Leave your casualty exposed.

Any information and documentation you have obtained about a casualty whilst rendering first aid should remain confidential.

DO Manage

- **1.** At the scene protect your casualty's privacy at all times.
- **2.** Maintain casualty's privacy do not release information to a third party.
- 3. Follow your company's policy and procedures.
- **4.** Familiarise yourself with the legislative requirements governing privacy.
- Access "Freedom of Information Act 1992 (WA)"\_ http://www.austlii.edu.au/au/legis/wa/consol\_act/foia1992222/.
- **6.** Access "The Privacy Act 1988". This site provides an overview of the act: http://www.oaic.gov.au/privacy/privacy-act/the-privacy-act.

## PLAN "B" Contingency

 There is no plan "B" in this case – always maintain privacy and confidentiality of your casualty.

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#### 2.7 Confidentiality of First Aid Records

WHAT is it?



Confidentiality is a legal rule that restricts you from releasing information about your casualty to a third party or to be careless with the first aid records.

MEMBER

Legislation varies with respect to who can have access to first aid records, the extent of access and what incidents have to be reported. However, the following people have the right to access casualty and incident information: ambulance paramedics/officers or a treating Doctor; those investigating workplace illness or injury such as police, coroner, workplace inspection authority, the courts and employer.

With the casualty's agreement, access can also be given to: the insurance company handling the claim; union representatives or occupational health and safety committees.

Despite legitimate access by many people to first aid records, the privacy of the casualty should always be respected to the greatest extent possible. The person controlling the records has a responsibility: to ensure records are only released to people with appropriate authority; that all records are stored in a secure location: for example; in a locked filing cabinet or if electronically stored protected by password and a range of IT security measures. The casualty should be informed if access has been given to a third party. A record should be kept of anyone who has had access to particular documents, when and why.

Individual records should be retained at the workplace for the period specified by relevant legislation. States and Territories have a limitation period after which a case cannot be brought to court. Generally this ranges from three (3) to seven (7) years; in the case of personal injury or death action for damages must commence within three (3) years of the incident.

- 1. Securely store first aid documentation.
- 2. Follow your company's policy and procedures.
- **3.** Familiarise yourself with the legislative requirements governing privacy.

PLAN "B"
Contingency

• There is no plan "B" in this case – always maintain privacy of your casualty and first aid documentation.

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#### 3. Infection Control and Standard Precautions

WHAT is it?



**Infection** is an invasion of body tissues by disease causing agents (for example; bacteria); their multiplication and the reaction of body tissue to them. **Infection control** is the discipline of preventing a health related spread of infection.

Infection control in first aid is very important both to the First Aider and the casualty. It is used to help prevent transmission of infections when managing a casualty. The basic principle of infection prevention and control is hygiene. Infection may be transmitted via breathing, coughing, touching, eating or body penetration.

Infection control is achieved by protecting both the casualty and the First Aider from the transmission of:

- Blood and bodily fluids such as saliva, vomit, pus, urine and faeces;
- Direct contact such as scabies and fungal infections;
- Infected hypodermic needles and other sharps; and
- Droplets from nasal, throat or airway secretions.

Standard precautions are the best practices to achieve infection control. These include good hygiene, wearing of personal protective equipment and correct disposal of sharps and clinical waste.

- **1.** Wash hands with soap/water.
- 2. Wear personal protective equipment (PPE); for example, gloves, facemask and eye protection goggles and cover exposed cuts with water proof dressings.
- **3.** Disinfect/wash blood splashed clothing, contaminated surfaces and equipment.
- **4.** Dispose of waste and sharps carefully.

- If water is not available use alcohol-based gels or wipes.
- If your gloves tear while giving first aid, take them off straight away, wash and dry your hands or use alcohol gel, put on a new pair of gloves.
- Use disposable gloves and if available a face mask and eye protection goggles.

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#### 4. Safe Manual Handling

WHAT is it?



The term 'manual handling' is used to describe a range of activities including lifting, lowering, pushing, pulling, carrying, moving or holding an object or person.

In an incident where you are required to provide Cardiopulmonary Resuscitation (CPR), you may have to lift or move the casualty to a suitable position or location. A casualty should only be moved if there is an immediate danger; for example an explosion, collapsing structure, traffic hazards, fire or poisonous fumes and so on. An awareness of safe manual handling techniques can prevent injury to yourself.

Most of the reported accidents involving manual handling tasks cause back injury, although hands, arms and feet are also vulnerable. Up to one third of all work injuries in Australia occur during manual handling.

Some general principles for reducing risks associated with manual handling are to:

- Minimise the lifting and lowering forces exerted;
- Avoid the need for bending, twisting and reaching movements;
- Reduce pushing, pulling, carrying and holding;
- Consider the size, surface characteristics, stability and weight of objects;
- Reduce the vertical and horizontal movements involved;
- Redesign the workplace layout; and
- Consider work postures and space requirements.

DO Manage

- 1. Always follow your organisational policies and procedures.
- 2. Follow DRSABCD.
- 3. Bend at the knees, keep your back straight and head up.
- **4.** Stay balanced: keep your centre of gravity low.
- **5.** Hold the weight close to your body for stability.
- **6.** Take small steps.

PLAN "B"

- Do not move unless absolutely necessary (it can lead to further injury).
- Use help for lifting, by working in a team.

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# 4.1 Safe Work Practices to Minimise Risks and Potential Hazards



**Safety** is the condition of being protected from harm; freedom from the occurrence or risk of danger, injury or loss.

**Hazard** is anything in the workplace that has the potential to harm people.

#### Risk assessment

In the workplace, all employees including employers are required to apply safe work practices at all time. The evidence that the workplace is safe is demonstrated in conducting regular workplace Risk Assessments. Risk Assessments identify risks to safe working environment.

The results of a risk assessment should enable employers to make decisions about establishing appropriate prevention and control measures.

The risk assessment is performed in accordance with occupational health and safety legislation and relevant Commonwealth/State/Territory regulations or approved codes of practice for the control of hazardous substances in the workplace.

Hazards can include objects in the workplace; for example, machinery and dangerous chemicals used in a person's job. A risk arises when it is possible that a hazard is likely to cause harm. The level of risk will depend on factors such as how often the job is done, the number of workers involved and the seriousness of any injuries that may result.

Some examples of potential hazards in the workplace are:

- Incorrect storage of materials;
- Wet or uneven floor surfaces;
- Blocked exits:
- Lack of access to fire extinguishers;
- Badly maintained equipment or improper use of equipment;
- Faulty/overloaded electrics; and
- Inappropriate noise levels.

# REMEMBER



# REMEMBER Continued

#### **Eliminating/minimising risks**

If a risk assessment suggests there is a risk factor within the workplace, employers are obliged to establish appropriate procedures to minimise or eliminate the hazard/risk. These could include:

- Employee training;
- Establishing first aid facilities including safety showers and eye wash stations;
- Provision of personal protection equipment; and
- Developing and communicating emergency procedures and evacuation procedures for the workplace.

UO Manage

- 1. Access WorkSafe website
- **2.** Familiarise yourself with the content on the website.

- There is no plan "B" safety is your priority.
- Call Triple Zero (000) in case of an emergency in the workplace.

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#### 5. Basic Life Support - Chain of Survival

WHAT is it?



The aid provided to maintain airway, breathing and circulation, in the hope that the natural function of the lungs and heart will be restored.

# MEMBER Know

In an emergency situation, immediate action needs to be taken to maximise a casualty's chances of survival, particularly when there are no signs of life: no breathing, movement or response. **Time is of the essence!** 

The Chain of Survival consists of four (4) links:

- 1. Early Recognition and Call for Help The ambulance must be called immediately to ensure that early defibrillation and advanced life support can commence without delay. This is known as Early Access in some places.
- **2. Early CPR** If CPR is started within four (4) minutes of the heart stopping, oxygenation of the vital organs (such as the brain) is maintained.
- **3. Early Defibrillation** If CPR is given within four (4) minutes and defibrillation within eight to twelve (8-12) minutes, there is a significantly improved chance of survival.
- **4. Post Resuscitation Care** Definitive treatment by the ambulance service, such as giving medication and stabilising the airway may increase chances of survival even further.

DO Manage

- 1. Follow DRSABCD Action Plan.
- **2.** Full step-by-step instructions are available in the Quick Guide at the end of this booklet.

PLAN "B"
Contingency

Call Triple Zero (000) for an ambulance.

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#### 5.1 Cardiopulmonary Resuscitation (CPR)



Cardiopulmonary Resuscitation or commonly known as CPR is an emergency procedure performed in an effort to manually **preserve brain functions** until further measures are taken to restore spontaneous **blood circulation and breathing** in a person.

# EMEMBER

Cardiopulmonary Resuscitation (CPR) includes **chest compressions** and **inflation of lungs** by breathing into the casualty's mouth. It is designed to pump the heart to get blood circulating and deliver oxygen to the brain until the treatment can stimulate the heart to start working again. When the heart is starved of oxygen and stops pumping – it is known as a cardiac arrest.

CPR is most effective when administered as quickly as possible.

**IMPORTANT:** CPR is given to a casualty when there are no signs of life:

- Not breathing normally;
- Not responding.

**NOTE:** Compressions on a casualty should be performed on a firm surface.

CPR is stopped when:

- The casualty is revived and starts breathing on their own;
- Medical help such as ambulance paramedics arrive to take over; and
- The person performing the CPR is forced to stop from physical exhaustion.

- 1. **30:2** Give thirty (30) compressions and two (2) breaths aiming to achieve five (5) sets of compressions in two (2) minutes.
- **2.** Full step-by-step instructions are available in the Quick Guide at the end of this booklet.
- **3.** Please access Guideline No. 6 Compressions from ARC Link: <a href="http://resus.org.au/guidelines/">http://resus.org.au/guidelines/</a>.

- Call Triple Zero (000) for an ambulance.
- Ask bystanders to assist if they are trained First Aiders.
- Learn first aid enrol into a first aid course.

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#### 5.2 CPR - Infants

## WHAT is it?

Cardiopulmonary resuscitation or commonly known as CPR is an emergency procedure performed in an effort to manually **preserve brain functions** until further measures are taken to restore spontaneous **blood circulation and breathing** in an infant under one (1) year.

# EMEMBER Know

Providing Cardiopulmonary Resuscitation (CPR) to infants will be slightly different to CPR provided to an adult person due to the delicate nature of an infant's body.

An infant's airways are smaller and more prone to blockage and the trachea is shorter and softer so over extension of the head and neck will compress the airway.

**Chest compressions** on infants are lighter than on adults and/or children and are performed with two **(2) fingers** only.

DO Manage

- **1.** Provide chest compressions using your fingers (index and middle) over the lower half of the sternum.
- 2. 30:2 Give thirty (30) compressions and two (2) breaths aiming to achieve five (5) sets of compressions in two (2) minutes.
- **3.** Full step-by-step instructions are available in the Quick Guide at the end of this booklet.

- Call Triple Zero (000) for an ambulance.
- Ask bystanders to assist if they are trained First Aiders.
- Learn first aid enrol into a first aid course.

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#### 5.3 Automated External Defibrillator (AED)



Automated External Defibrillator or AED is a device used in the treatment of cardiac arrest to deliver a therapeutic dose of electrical energy to the heart for the purpose of re- starting and stabilising heartbeat rhythm.

# EMEMBER Know

An AED is a portable external device that automatically diagnoses the potentially life-threatening cardiac rhythm anomalies in a casualty and delivers an electric shock to the heart through the chest. This shock helps restore the heart to a regular, healthy rhythm. The electrical impulse that this device produces makes the heart contract, pumping the needed oxygen around the body. In the normal beating heart, this process repeats itself.

The device is a kit that consists of:

- A power control unit;
- Paddle electrodes; and
- Accessories.

Once turned on, an AED provides verbal instructions over a speaker which is inbuilt into the device.

AED is a battery-operated device and is readily available in our community, workplaces and public facilities. **NOTE:** When conducting Occupational Safety and Health (OHS) audits in the workplace always check if the battery is fully charged.

- Open the AED case and turn the device ON.
- 2. The automatic prompts will tell you what you need to do.
- **3.** Place the pads on the casualty's chest.
- **4.** AED will check and analyse the casualty's heart rhythm.
- **5.** The automatic prompt will instruct you to administer the shock if required.
- **6.** Full step-by-step instructions are available in the Quick Guide at the end of this booklet.

- Call Triple Zero (000) for an ambulance.
- Ask bystanders to assist if they are trained First Aiders.
- Learn first aid enrol into a first aid course.

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#### 5.4 Defibrillation



Defibrillation is a treatment of delivering a therapeutic dose of electrical energy to the heart by using a device called a defibrillator (or Automated External Defibrillator – AED) for the purpose of re-starting and stabilising the heart rhythm.

# EMEMBER

CPR is provided to an unresponsive and not breathing normally casualty, to maintain their blood flow and keep the blood oxygenated. While the chest compressions when performing CPR maintain the casualty's blood flow, as a First Aider you will also need to use an Automated External Defibrillator (AED). An AED is used to assist your casualty's heart to regain its normal rhythm by providing electric shocks in a sudden cardiac arrest situation. The electrical shocks delivered by the defibrillator may help re-establish normality in a heart's rhythm.

The greatest casualty survival results are when the interval between the start of the cardiac arrest and the delivery of defibrillation is as brief as possible.

The appropriate use of an AED is on a casualty who is assessed as being:

- Unresponsive; and
- Not breathing normally.

It is crucial CPR continues except when a shock is being delivered or when instructed by the AED machine.

**NOTE**: Do not remove defibrillator pads even if the casualty is conscious.

- 1. Follow DRSABCD Action Plan.
- **2.** Turn the machine on, follow the machine's prompts and attach the defibrillator pads to the casualty as soon as possible.
- **3.** Full step-by-step instructions are available in the Quick Guide at the end of this booklet.
- **4.** Familiarise yourself with ARC Guideline 7 Automated External Defibrillation (AED) in Basic Life Support (BLS): <a href="http://resus.org.au/quidelines/">http://resus.org.au/quidelines/</a>.

- Call Triple Zero (000) for an ambulance.
- Ask bystanders to assist if they are trained First Aiders.

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#### 5.5 Defibrillation - Adults and Children (Over 8 Years)

WHAT is it?

Defibrillation is a treatment of delivering a therapeutic dose of electrical energy to the heart by using a device called a defibrillator (or Automated External Defibrillator – AED) for the purpose of re-starting and stabilising heartbeat rhythm in adults and children over eight (8) years of age.

# REMEMBER

The use of a defibrillator is a third link in the Chain of Survival:

- 1. Early access;
- 2. Early CPR;
- 3. Early defibrillation; and
- Early advanced life support.

The time to defibrillation is a key factor that influences survival. For every minute defibrillation is delayed, there is approximately 10% reduction in survival if the casualty is in cardiac arrest.

Defibrillation for children aged eight (8) years or older and adults are the same.

If you are alone with the casualty follow DRSABCD Action Plan.

If two First Aiders are present, one should go for help and collect a defibrillator (if available), while the other should begin CPR on the casualty.

- 1. Follow DRSABCD Action Plan.
- **2.** Expose the casualty's chest.
- **3.** Check for a pacemaker device or implant scars (place pads away from the device site).
- **4.** Remove jewellery and medication patches.
- **5.** Apply the pads to a casualty's bare chest:
  - 1st pad to right chest wall, below the collarbone;
  - 2nd pad to left chest wall, below the left nipple; and
  - Ensure both pads adhere to the skin.
- **6.** Follow automated instructions.
- **7.** Full step-by-step instructions are available in the Quick Guide at the end of this booklet.

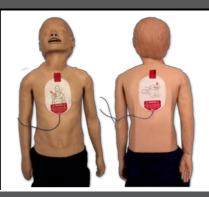
- Call Triple Zero (000) for an ambulance.
- Ask bystanders to assist if they are trained First Aiders.

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#### 5.6 Defibrillation- Children 1-8 Years

WHAT is it?



Defibrillation is a treatment of delivering a therapeutic dose of electrical energy to the heart by using a device called a defibrillator (or Automated External Defibrillator – AED) for the purpose of re-starting and stabilising heartbeat rhythm in children between one (1) and eight (8) years of age.

Defibrillation for children between one (1) and eight (8) years of age is slightly different to those of adults.

**Defibrillation for children** between one (1) and eight (8) years is performed using a defibrillator with **a paediatric mode** or **paediatric pads**.

Paediatric pads are positioned one pad in the centre of the chest between the nipples and the second pad on the back between the shoulder blades. If the AED does not have a paediatric mode or paediatric pads, then the standard AED and adult AED pads can be used.

If the child is large enough the pads can be placed as per the adult pads. Ensure the pads do not touch each other on the child's chest. If the pads are too large place them on the child as per the paediatrics pads (chest between the nipples and on the back between the shoulder blades).

It is recommended that both adult and paediatric pads are stored with the defibrillator.

DO Manage

- 1. Follow the steps in Section 5.5 of this Guide.
- **2.** Full step-by-step instructions are available in the Quick Guide at the end of this booklet.

- Call Triple Zero (000) for an ambulance.
- Ask bystanders to assist if they are trained First Aiders.

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#### 5.7 Defibrillation - Infants

### WHAT is it?

Defibrillation is a treatment of delivering a therapeutic dose of electrical energy to the heart by using a device called a defibrillator (or Automated External Defibrillator – AED) for the purpose of re-starting and stabilising the heart rhythm.

# EMEMBER Know

Infant is a child of up to twelve (12) months of age.

Should First Aiders defibrillate infants? The short answer is  ${f NO}$ .

Infants are not just small versions of adults; they have many body system differences. The differences between infant and adult reduce as the infant becomes older.

**NOTE:** Only experienced health practitioners should defibrillate infants.

DO Manage

1. Do not defibrillate an infant.

PLAN "B"

Contingency

- Provide CPR.
- Call Triple Zero (000) for an ambulance.
- Ask bystanders to assist if they are trained First Aiders.

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#### 6. First Aid Management of Asphyxia

WHAT is it?



Respiratory distress is a potentially life-threatening medical condition where the lungs cannot provide enough oxygen for the rest of the body. The effect of respiratory distress is asphyxia.

EMEMBER

**Positional Asphyxia** - a form of asphyxia which occurs when someone's body/ head position prevents them from breathing normally.

#### Caused by:

- Airway obstructions tongue, vomit and position of the body;
- Head injuries no nerve messages from brain about breathing;
- Heart conditions no blood supply to carry oxygen from lungs to vital organs;
- Chest conditions bronchospasm; for example ineffective exchange of gases; and
- Lack of oxygen poisonous gases, smoke, drowning, suffocation, and strangulation.

#### **Signs and Symptoms:**

- Breathlessness;
- Blue tinge to lips and skin; and
- Air hunger.

#### Complications:

 If the casualty becomes unconscious and is not breathing normally then perform CPR.

#### Conscious Casualty:

1. Follow DRSABCD Action Plan.

**Unconscious Casualty:** 

- 2. DRSABCD Action Plan.
- 3. Remove cause and position casualty to maintain airway.
- 4. Resuscitate if necessary.
- 5. Urgent medical aid.

PLAN "B"
Contingency

If you cannot physically move the casualty, for example; unconscious in a car with their head slumped forward, if safe to do so, manually hold the casualty's head so that the airway is open.

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# 6.1 First Aid Management in Case of Regurgitation and Vomiting

WHAT is it?



Regurgitation is the forceful expulsion of undigested food in the stomach through the mouth. Vomiting is the forceful ejection of the stomach content through the mouth.

#### Causes:

- Head injury;
- Stomach flu;
- Dehydration;
- Overeating;
- Flu: and
- Acid Reflex and so on.

#### **Signs and Symptoms:**

- Nausea; and
- Intestinal, kidney, liver and other diseases.

#### **Complications:**

Choking.



- 1. Clear the airway before performing CPR.
- 2. Roll the patient on their side and tap the underside of their cheek.
- **3.** Only use your fingers to scape out solids from the mouth, for example dentures that have come loose or a mouth guard.
- 4. Do not use a tool like a spoon or stick

PLAN "B"
Contingency

 No plan "B" – you must clear the airway to allow the casualty to breath or to perform CPR.

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#### 7. Post Incident Debrief and Evaluation





**Debrief** is a process of obtaining information from a person after an incident. **Evaluation** is a process of making judgement about the value of first aid provided.

A major incident can be very traumatic experience for a First Aider. Following an incident, it is important that a debriefing session is held and followed up by an evaluation of the outcomes of that incident.

In a First Aid situation, once you have handed a casualty over to medical aid, there are a number of events that need to be addressed:

- Cleaning up;
- Occupational Health and Safety (OHS) issues;
- Reporting requirements; and
- Post incident debriefing.

Everyone will react differently after an incident. Reactions will vary according to the individual and the incident and a post incident debrief is an important part of the incident management process.

The purpose of the post incident debrief is:

- Primarily to look after the individuals involved in the incident and their welfare, giving them the opportunity to discuss the emotions that they might have about the incident;
- Bring the incident to a close:
- Allows the provision of support to the First Aider;
- To provide information to prevent a similar incident from occurring in the future; and
- Identification of any shortfalls in the emergency action.

The debrief may involve:

- Gathering and documenting all relevant details regarding the incident and effectiveness of incident management process and first aid given;
- Document any information relayed by the individuals involved; and
- Providing advice on further assistance available; for example, counselling.
- Remember not to lose sight of those who were involved in the incident. including yourself; and bear in mind the need for professional services.

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# REMEMBER Continued Know

All those involved in the incident should be present at the debriefing session and be encouraged to discuss the process and outcomes. It is equally important, to ensure that following the debriefing session(s), appropriate referrals are made to counsellors, mediators or the industry chaplain.

The role of the First Aider not only encompasses employee's physical health requirements, but should also include concerns for their own psychological wellbeing.

#### **Evaluating an incident**

Part of the process of continuous improvement and development for any organisation and individual is evaluation. Evaluation can form part of the formal and informal debriefing process. Evaluation of an incident can look at options or strategies that can be adapted to better workplace conditions. This can then prevent future stress and provide ways to eliminate or further reduce risks.

Most organisations will have procedures in place within their various departments; for example, First Aid Action Plan, Emergency Action Plan and Risk Management Plan and so on. These plans can be evaluated for their effectiveness on an ongoing basis.

All plans should be compliant with:

- Established first aid principles;
- Australian Resuscitation Council (ARC) Guidelines;
- Organisational policies and procedures;
- Australian national peak bodies;
- Industry standards; and
- State/Territory legislation and regulations.

- **1.** Be empathetic (understanding).
- 2. Provide advice on further support/assistance available.
- **3.** Gather and document all relevant details regarding the incident.
- **4.** Document any information relayed by the individuals involved.
- **5.** Remember not to lose sight of those who were involved.

PLAN "B"
Contingency

**NOTE:** At the time you did the best you could do.

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#### 7.1 Verbal Report

WHAT is it?



Verbal reporting is a quick verbal report to a supervisor or medical aid when handing over.

In the event of an emergency a quick verbal report may be required to be given to your supervisor and or medical aid, for example Paramedic.

When giving a verbal report or handover to medical aid or a supervisor, ensure that the information that you give is factual, concise, relevant and clear.

This verbal report should cover:

- What happened (events leading up to the incident)?
- How long ago did it happen?
- The first aid management given?
- The condition of the casualty now?
- Has the casualty improved or deteriorated in the first aiders care?
- Casualty's personal details (if known).

#### **ASSESS:**

- 1. **History** What has happened? When did it happen? Has the casualty got an existing condition; for example, diabetes? You may get the history from the casualty themselves, a bystander or family member.
- 2. Signs Signs are what you see and feel; for example, bleeding and a broken bone (fracture). Look at the casualty, what is wrong with them? Listen to what the casualty may say (if conscious), listen to their breathing, are they breathing? Are they breathing normally?
- 3. **Symptoms** What the casualty complains about such as pain and nausea.

You can get the history, signs and symptoms by using our senses, we look, listen and feel.

PLAN "B"
Contingency

Provide a written report.

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#### 7.2 Written Report - Incident Report Form





Incident Report is a written document that is a full account of an incident from the casualty's perspective.

MEMBER Krow It is important that the First Aider fully documents all incidents when personnel seek advice or treatment relating to first aid and or social problems.

All documentation should adhere to the following:

- Be accurate & legible;
- Be written at time of treatment;
- Be written in ink and never erased;
- If a mistake has been made, cross it out with a single line so that the original writing can still be read;
- Sign and date the correction and then add the correct record; and
- DO NOT use correction fluids.

When completing documentation ensure that:

- Facts are recorded as stated by the casualty/employee;
- Opinions or hearsay are not recorded and documented; and
- Incident report forms also include the provision of first aid and medications.

#### NOTE:

An incident report form needs to contain all the information required to satisfy statutory requirements. If possible ensure that records concerning accidents are validated and signed by the casualty/employee involved.



1. Fully complete written report.

PLAN "B"
Contingency

Provide a verbal report.

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#### 7.3 Stress Management



**Stress** is our way to respond to pressure, a feeling we have when we think we are in a situation we cannot manage. **Stress management** is a technique or a number of techniques which control our level of stress for the purpose of improving it.

Providing care in a high pressure emergency situation, can be draining and cause stress especially when children are involved. Even experienced First Aiders or personnel attending an emergency situation can experience unpleasant effects. People react differently and may display a variety of responses to an emergency situation, often not until after the event or sometime later. Some people handle stresses by talking, some people withdraw, while others prefer to physically work it off. Reactions of colleagues, bystanders and so on; will vary according to the individual and the nature of the incident. A post incident debrief is an important part of the incident management process.

#### Signs and symptoms of stress:

- Feelings of guilt, fear, shame;
- Sweating;
- Anxiety;
- Increased heart rate; and
- High blood pressure.

#### First Aider's **Stress Management** may include:

- Debriefing post incident for the purposes of individual welfare;
- Evaluation post incident to identify shortfalls in the Emergency Action Plan;
- Access to professional services such as: counsellors, Doctor, a help line, or the clergy. How this is organised will depend on individual organisations and the strategies (if any) that they have in place. Not all cases will require an individual to receive professional assistance and an initial debrief may be sufficient; and
- Peer support.

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# REMEMBER Continued

- Self-Care
- Self-Care includes maintaining a healthy diet, eating regular meals, getting enough sleep and exercising. Avoid the use of alcohol and other drugs to either relax or keep going.
- Any organisation you work for should have clear policies and procedures in
  place that ensure a safe, risk free environment. It is the responsibility of both
  the employer and employees to ensure all members of staff work together to
  create a workplace environment that is pro-active and strives to recognise
  potential causes of stress so immediate action can be taken to reduce or
  eliminate stress and harm.

DO Manage

- **1.** Familiarise yourself with the stress related issues.
- 2. Seek assistance.
- 3. Look after your health and wellbeing.

PLAN "B"
Contingency

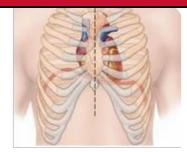
Seek professional help.

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# 8. Basic Anatomy and Physiology Relating to the Chest





**Anatomy** is part of biology that study the structure of organs and their parts. **Physiology** is the scientific study of the normal functioning in a living system. **The Chest (or thorax)** is part of anatomy of humans (and some animals) located between the neck and abdomen.

The chest or thorax extends from the neck to the diaphragm. The chest is made of the thoracic cavity and the thoracic wall (rib cage).

- The rib cage (twelve (12) pairs of ribs) protects major organs such as heart, lungs and liver. It consists of sternum, ribs and thoracic vertebrae. The chest contains the following main organs: the heart; lungs; thymus gland and muscles.
- The body needs a constant supply of oxygen to function. The act of breathing not only supplies this oxygen to the body but also expels waste gases such as carbon dioxide from the body. Respiratory distress syndrome is a potentially life-threatening medical condition where the lungs cannot provide enough oxygen for the rest of the body.
- A child's airway is narrower than an adult and is more prone to blockage by blood or secretions. Children prefer to breathe through their nose so a nasal obstruction can cause respiratory distress. A child's primary response to respiratory distress is to increase the rate and effort of breathing.
- In infants the trachea is shorter, softer and more pliable and may be distorted by excessive backward head tilt (over extension) so when opening the airway (in CPR), an infant's head should be kept in a neutral position, the lower jaw supported at the point of the chin, with the mouth maintained open.

Manage

- 1. Research basic anatomy and physiology topics.
- **2.** Apply your knowledge when providing first aid.

PLAN "B"
Contingency

Consult a medical practitioner.

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#### 8.1 The Heart

WHAT is it?



Heart is a muscular organ in humans and animals which pumps blood through the blood vessels and the circulatory system.

# EMEMBER Know

The heart is located in the chest cavity just behind and slightly to the left of the sternum (breastbone).

The heart is a muscular organ around the size of an adult's clenched fist. It is a two sided pump that contracts and relaxes to pump blood into the circulatory system.

The circulatory system enables blood to circulate throughout the body, transporting oxygen and nutrients to cells and removing waste products from the body.

Manage

- **1.** Research basic anatomy and physiology topics.
- **2.** Apply your knowledge when providing first aid.

PLAN "B"
Contingency

Consult a medical practitioner.

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#### 8.2 The Lungs

### WHAT is it?



The lungs are essential respiratory organs in humans and most breathing animals.

# EMEMBER

The lungs are located on either side of the heart. The lungs are part of the respiratory system which supplies a constant supply of oxygen to the body.

When a person inhales oxygen is taken from the mouth or nose, down the trachea and into two tubes (bronchi) that then branches into smaller tubes (bronchioles) which end in air sacs (alveoli) within the lungs.

From the lungs, oxygen crosses into the blood to be transported to all parts of the body.

DO Manage

- 1. Research basic anatomy and physiology topics.
- 2. Apply your knowledge when providing first aid.

PLAN "B"
Contingency

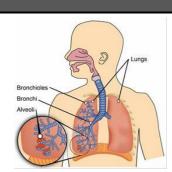
Consult a medical practitioner.

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#### 8.3 Breathing





Breathing is the process that moves air in and out of the lungs or oxygen through other respiratory organs. Breathing is also called ventilation which includes both inhalation and exhalation.

The body needs a constant supply of oxygen to function. The act of breathing not only supplies this oxygen to the body but also expels waste gases such as carbon dioxide from the body.

The diaphragm and intercostal muscles expand the chest to draw air into the lungs. The air then crosses to the blood for transportation to the body. As the diaphragm and intercostal muscles relax, air is forced out of the lungs.

Normal breathing is essential to maintaining life. Persons who are gasping or breathing abnormally and are unresponsive require resuscitation.

Breathing can be categorised as:

- Effective; and
- Ineffective breathing.

Breathing may be absent or ineffective as a 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 concerned with breathing;
- Problems affecting the lungs;
- Drowning; and
- Suffocation.

There is a high incidence of abnormal gasping (agonal gasps) after cardiac arrest.

The First Aider should:

- 1. LOOK for movement of the upper abdomen or lower chest;
- **2. LISTEN** for the escape of air from nose and mouth; and
- **3. FEEL** for movement of the chest and upper abdomen.

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Movement of the lower chest and upper abdomen does not necessarily mean the casualty has a clear airway. Impairment or complete absence of breathing may develop before consciousness is lost by the casualty.

#### Absence of normal breathing

Respiratory distress syndrome is a potentially life-threatening medical condition where the lungs cannot provide enough oxygen for the rest of the body. There are many causes /conditions that come under the umbrella of respiratory distress; for example, asthma, airway obstruction, hyperventilation, croup and epiglottitis. It manifests as a difficulty in breathing and the psychological experience associated with such difficulty.

Signs and symptoms may include: rapid shallow breathing, sharp pulling in the chest below and between the ribs with each breath, grunting sounds, flaring of the nostrils, increased sweat on the forehead with skin feeling cool and clammy and wheezing when breathing.

#### Anatomic and physiological differences between adults and children (airway)

A child's airway is narrower than an adult and is more prone to blockage by blood or secretions. Children prefer to breathe through their nose so a nasal obstruction can cause respiratory distress. A child's primary response to respiratory distress is to increase the rate and effort of breathing.

In infants the trachea is shorter, softer and more pliable and may be distorted by excessive backward head tilt (overextension); so when opening the airway (in CPR), an infant's head should be kept in a neutral position, the lower jaw supported at the point of the chin with the mouth maintained open.

- 1. **LOOK** for movement of the upper abdomen or lower chest.
- **2. LISTEN** for the escape of air from nose and mouth.
- **3. FEEL** for movement of the chest and upper abdomen.
- **4.** Familiarise yourself with ARC Guideline No. 5 Breathing http://resus.org.au/guidelines/.

- Call Triple Zero (000) for an ambulance.
- Provide CPR.
- Ask bystanders to assist if they are trained First Aiders.

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### WHAT is it?



Consciousness is the state of awareness by being aware of surroundings.

Unconsciousness is a state of unarousable or unresponsiveness, where the casualty is unaware of their surroundings and no purposeful response can be obtained.

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

- Low brain oxygen levels;
- Heart and circulation problems (for example fainting, abnormal heart rhythms);
- Metabolic problems (for example overdose, intoxication, low blood sugar);
   and
- Brain problems (for example head injury, stroke, tumour, epilepsy).

Combinations of different causes may be present in an unconscious casualty: for example, a head injury casualty under the influence of alcohol.

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

Assess the collapsed casualty'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 casualty, who fails to respond or shows only a minor response such as groaning without eye opening, should be managed as if unconscious.

- 1. Follow DRASABCD Action Plan.
- **2.** Familiarise yourself with ARC Guideline No. 3 Recognition and First Aid Management of the Unconscious Victim <a href="http://resus.org.au/guidelines/">http://resus.org.au/guidelines/</a>.

PLAN "B"
Contingency

Call Triple Zero (000) for an ambulance.

EMEMER